ZIMDARS & HUNT

MANUFACTURERS OF

Electric Light

AND

Power Specialties

127 FIFTH AVENUE

NEW YORK

NEW YORK

101 FIFTH AVENUE

"Homer" Sprocket

AND

Flexible Link

MANUFACTURERS OF

LAMBERT & HUNT

GENERAL CATALOGUE.

VALLEE BROS. & CO

SECTION A.

625 ARCH ST. PHILA

Knife Switches and Switch Board Fittings.

ZIMDARS & HUNT,

....MANUFACTURERS OF....

Electric Light and Power Specialties,

127 Fifth Avenue,

NEW YORK.

FACTORY:

52-54 Grove Street.

327 Grays Inn Road,

LONDON, ENG.

COPYRIGHT 1897, BY JOHN T. HUNT.

ZIMDARS & HUNT,
NEW YORK AND LONDON.

JOHN POLHEMUS PRINTING COMPANY, 121 FULTON ST., N. Y.

Customers will confer a favor by notifying us at once when goods purchased are not to their entire satisfaction.

To Customers. : :

Always order by catalogue number when possible.

Parties unknown to us will avoid delay by sending satisfactory reference or cash with their first order.

Orders from parties unknown to us for goods to be shipped C. O. D. must be accompanied by sufficient funds to cover express charges both ways.

Our terms are strictly 30 days net in New York funds, unless the sale is made through an agency, when funds current in its city will be accepted; no allowance for exchange will be made.

The prices quoted in this catalogue are F.O.B. New York.

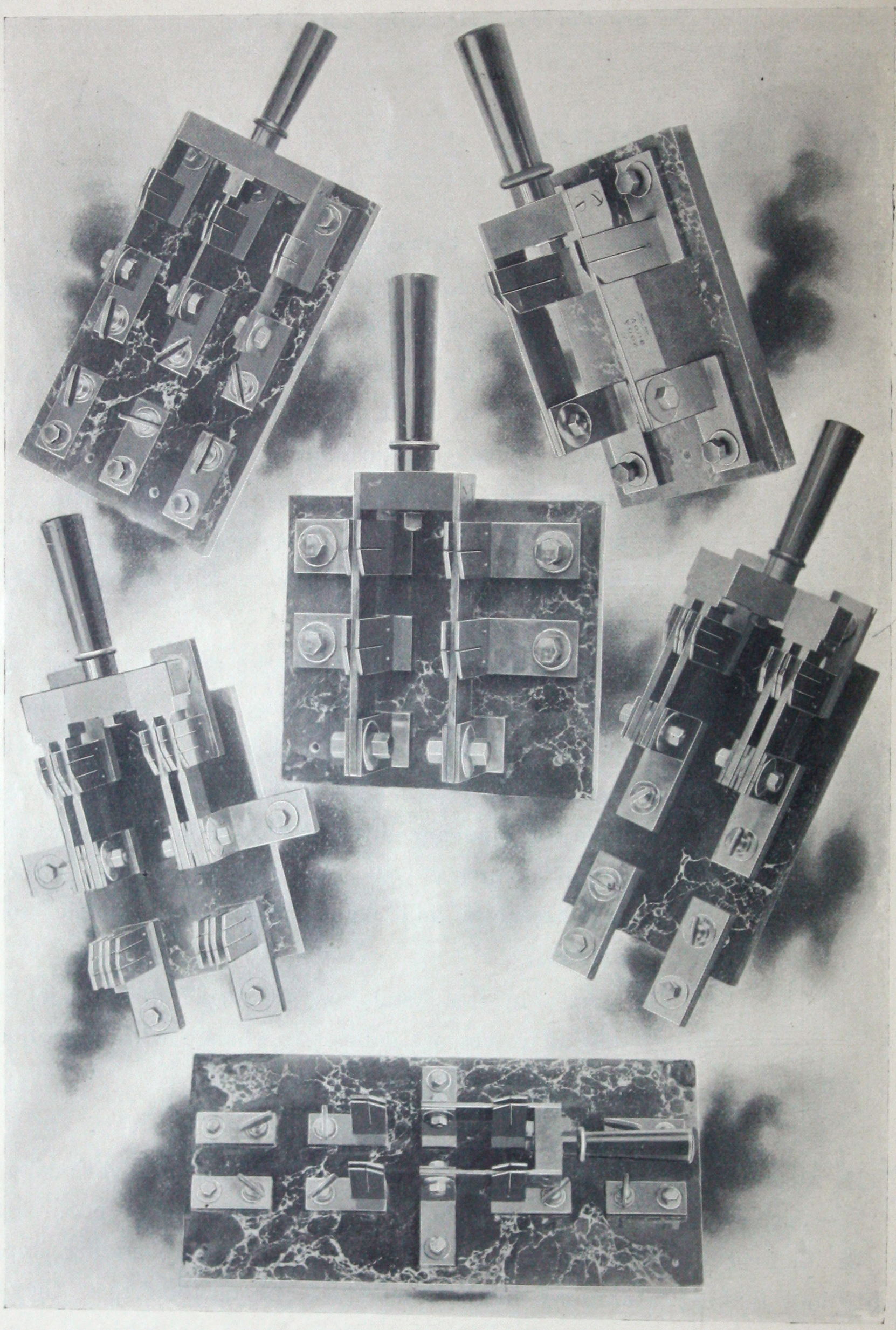
Always send shipping directions with order; in their absence we will use our judgment in selecting routes.

As we employ experienced packers we cannot be responsible for breakage after having obtained from transportation company "in good order" receipt. All claims for breakage and damage should be made to the carriers.

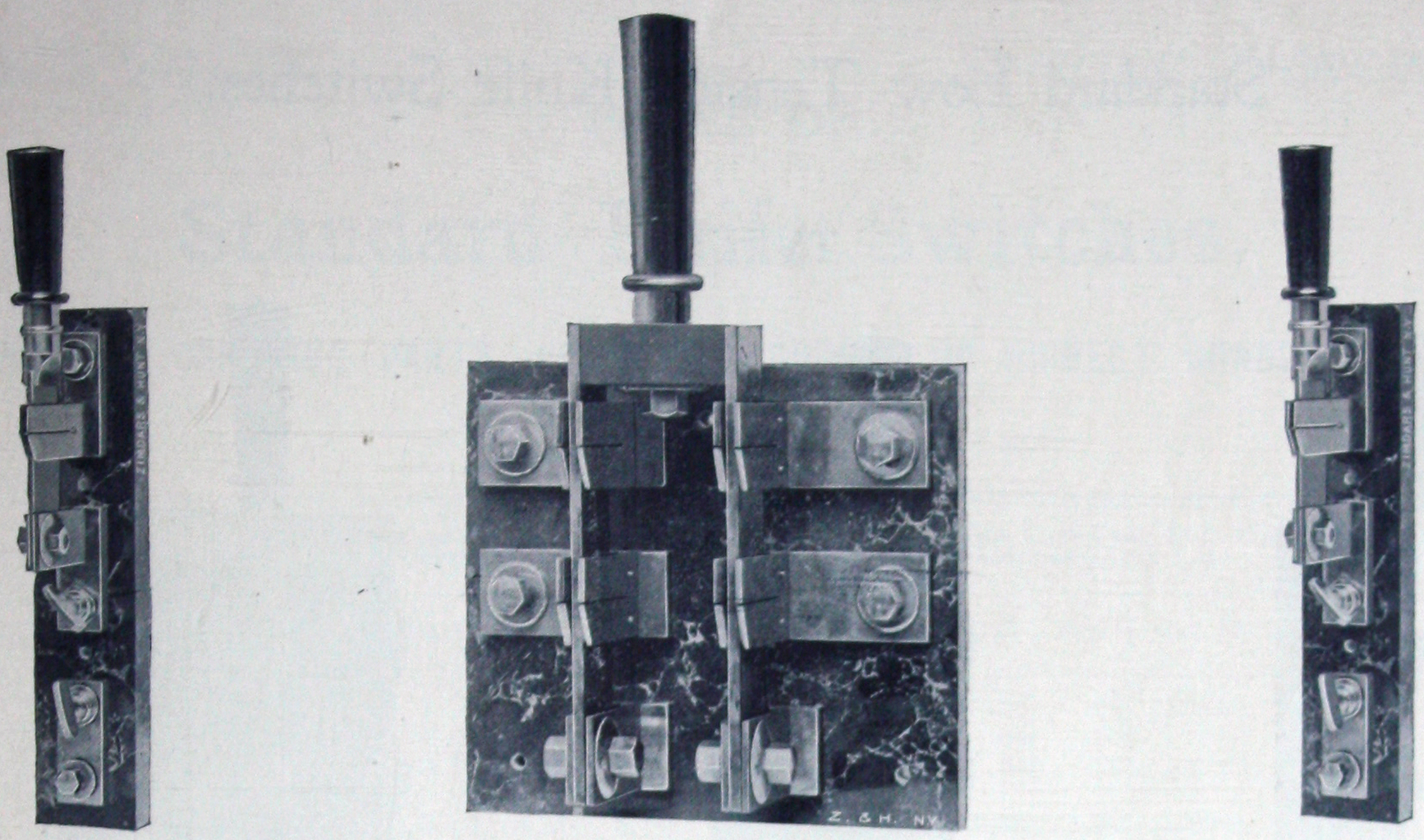
The prices in this catalogue supersede all former prices, and all prices are subject to change without notice.

THE illustrations in this catalogue are from photographs of the various articles themselves as they are at date of issue. Our aim is to keep our articles at the highest point of perfection, and we are constantly adding improvements and making alterations, in the interest of our customers, as they may seem desirable, so that the illustrations cannot always be taken as showing the exact design and detail arrangement in use by us at the time of ordering.

ID 90-B5992 TCF



ZIMDARS & HUNT, NEW YORK.



= = OUR SWITCHES. = =

OUR switches are made by skilled mechanics, from the best material obtainable and we claim they are as near perfection as it is possible to make them.

All current carrying parts are of pure drawn Lake Superior copper of highest conductivity, their sectional areas as well as the contact faces of all sliding and stationary parts have been calculated out with the greatest care in accordance with the latest data and the best practice, and a liberal margin for overload allowed.

As the current density throughout all parts of our switches is very low when they are working on their rated current the rise of temperature is also very low, and they can be worked for a considerable length of time far above their actual rating without injury to themselves or adjacent apparatus.

The same care has been bestowed on the mechanical points, both in the design and construction, as has been given to the electrical ones. All joints are carefully and accurately fitted, all holes drilled true and square, and all exposed parts neatly and carefully finished in the best manner, the best grade of workmanship being maintained throughout.

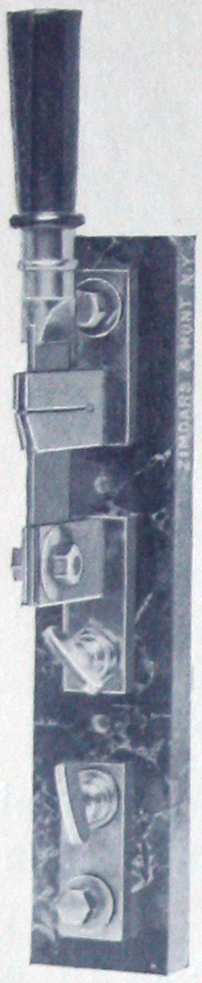
While great attention has been given to mechanical and electrical points, symmetry and beauty of design have not been neglected and these switches will be found to equal in appearance all, and excel many, of those on whose design the main effort has been to produce a switch of pleasing appearance, with electrical and mechanical points matters of secondary consideration.

We offer these switches to the trade in the full confidence that our efforts to produce apparatus of the highest grade will be appreciated.

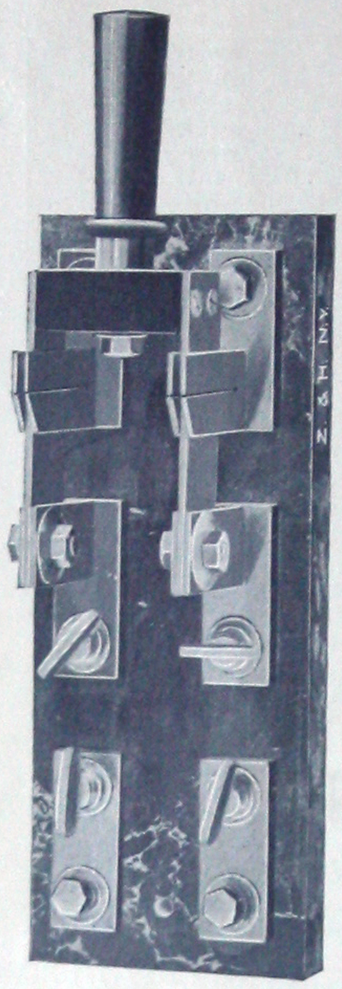
ZIMDARS & HUNT, NEW YORK.

Standard Low Tension Knife Switches.

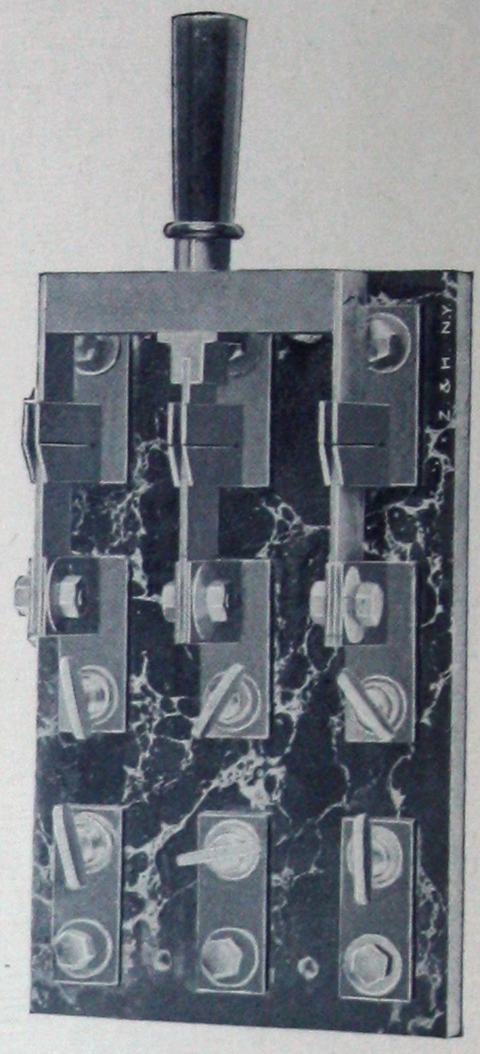
TYPE A.



SINGLE POLE.



DOUBLE POLE.



TRIPLE POLE.

: : : SINGLE THROW SWITCHES. : : :

THE illustrations above show the single, double and triple pole arrangements of our **Standard Type A Knife Switches.** All current carrying parts are of the best Lake copper, the conductivity of which is known. Electrical and mechanical details have been well worked out and these switches can be relied upon to do their duty under all circumstances. The trimmings are of neat and effective patterns and the finish of the complete switch is of the best. We have used a great number of them in the finest switch board work. Information concerning back connections and the prices of same will be found on pages 26 and 27.

---

300 VOLTS. *SINGLE THROW.*

... PRICES OF ...

Standard Knife Switches.

CURRENT CARRYING PARTS, PURE LAKE COPPER OF HIGHEST CONDUCTIVITY.

TYPE A.

AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS.		WITH FUSE CONNECTIONS.		CATALOGUE NUMBER.	PRICE EXTRA FOR FULL SET OF CONNECTING LUGS.		
		PLAIN.	POL.	PLAIN.	POL.		PLAIN.	POL.	CAT. NO.
25	S.P.	1.10	1.35	1.20	1.55	S101A	.28	.30	LS101
	D.P.	1.85	2.20	2.10	2.45	S102A	.56	.60	LS102
	T.P.	2.75	3.20	3.00	3.60	S103A	.84	.90	LS103
50	S.P.	3.40	4.20	3.80	4.60	S201A	.36	.40	LS201
	D.P.	4.60	5.50	5.00	6.00	S202A	.72	.80	LS202
	T.P.	6.30	7.50	6.80	8.10	S203A	1.08	1.20	LS203
75	S.P.	3.80	4.70	4.25	5.15	S301A	.36	.40	LS301
	D.P.	5.80	6.95	6.25	7.60	S302A	.72	.80	LS302
	T.P.	8.40	10.15	9.10	10.90	S303A	1.08	1.20	LS303
100	S.P.	4.20	5.15	4.65	5.60	S401A	.70	.84	LS401
	D.P.	7.00	8.45	7.50	9.15	S402A	1.40	1.68	LS402
	T.P.	10.50	12.75	11.40	13.75	S403A	2.10	2.52	LS403
150	S.P.	5.00	6.10	5.45	6.60	S501A	.90	1.04	LS501
	D.P.	8.10	9.75	8.35	10.55	S502A	1.80	2.08	LS502
	T.P.	11.95	14.40	12.95	15.50	S503A	2.70	3.12	LS503
200	S.P.	5.80	7.10	6.30	7.70	S601A	1.10	1.24	LS601
	D.P.	9.20	11.05	9.25	12.00	S602A	2.20	2.48	LS602
	T.P.	13.40	16.10	14.50	17.30	S603A	3.30	3.72	LS603
300	S.P.	6.50	7.75	7.00	8.50	S701A	1.30	1.44	LS701
	D.P.	10.75	13.00	11.50	14.00	S702A	2.60	2.88	LS702
	T.P.	15.80	19.00	17.00	20.40	S703A	3.90	4.32	LS703
400	S.P.	7.00	8.85	7.65	9.25	S801A	1.44	1.64	LS801
	D.P.	12.25	14.70	13.20	15.80	S802A	2.88	3.28	LS802
	T.P.	18.25	21.90	19.65	23.50	S803A	4.32	4.92	LS803

The above prices are for Switch complete, ready for connecting lugs, but do not include lugs.

Prices of Lugs in above list are for Standard Single, and apply only when Lugs are ordered with Switches.

Polished Switches are Mounted on Marbleized Slate Bases.

For Switches Mounted on White Italian Marble, add 10 per cent. to above prices.

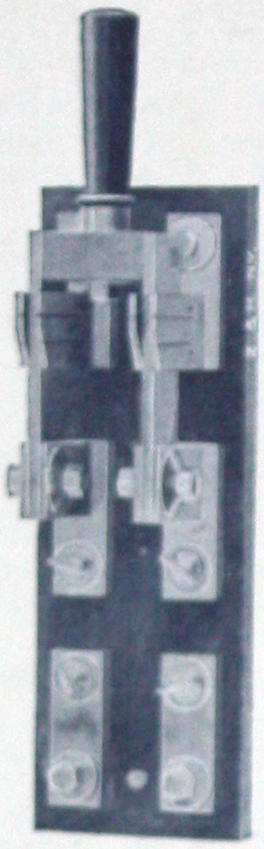
For Prices of Switches larger than 400 amperes, see page 9.

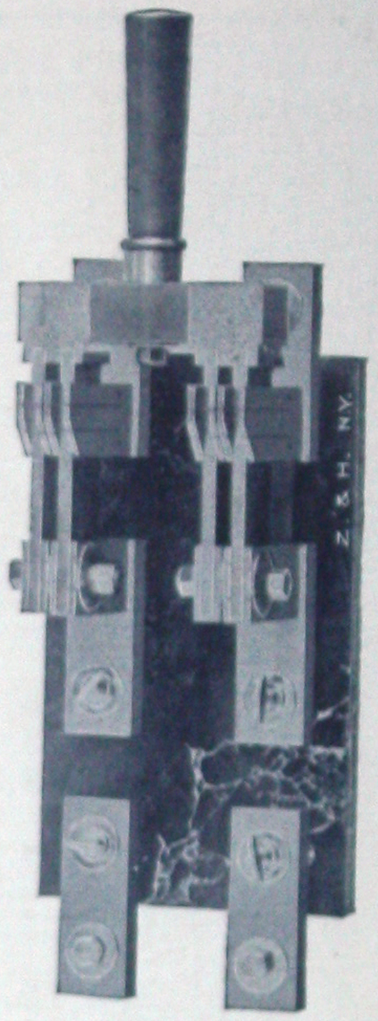
See remarks concerning back connections for switch board work on page 26.

Standard Low Tension Knife Switches.

SWITCHES FOR LARGE CURRENTS.

TYPE A.





Single Throw Switches for Heavy Currents.

ON the opposite page the prices of **Standard Type A** Switches of 500 Amperes capacity and over are given. Those of 1000 Amperes and over have multiple blades.

A low current density has been maintained throughout all parts of these Switches, and they can be depended upon to carry their full rated working current indefinitely, without appreciable rise in temperature.

Information concerning back connections for these Switches, and the prices of same, will be found on pages 26 and 27.

---

300 Volts. *Single Throw*

...PRICES OF...

Standard Knife Switches.

CURRENT CARRYING PARTS PURE LAKE COPPER OF HIGHEST CONDUCTIVITY.

TYPE A.

Ampere Capacity.		Without Fuse Connections.		With Fuse Connections.		Catalogue Number.	Price Extra for Set of Connecting Lugs.		
		Plain.	Pol.	Plain.	Pol.		Plain.	Pol.	Cat. No.
500	S P.	8.60	10.60	9.35	11.25	S901A	1.44	1.64	LS901
	D.P.	14.45	17.35	15.60	18.70	S902A	2.88	3.28	LS902
	T.P.	21.50	25.85	23.30	27.90	S903A	4.32	4.92	LS903
600	S.P.	10.20	12.30	11.05	13.25	S111A	1.80	2.00	LS111
	D.P.	16.65	20.00	17.95	21.55	S112A	3.60	4.00	LS112
	T.P.	24.75	29.75	26.90	32.30	S113A	5.40	6.00	LS113
800	S.P.	16.50	19.80	17.80	21.40	S121A	2.40	2.60	LS121
	D.P.	27.65	34.10	30.05	36.05	S122A	4.80	5.20	LS122
	T.P.	42.65	51.20	46.20	55.50	S123A	7.20	7.80	LS123
1000	S.P.	19.10	22.95	20.65	24.80	S131A	4.00	4.44	LS131
	D.P.	35.60	43.20	38.55	46.25	S132A	8.00	8.88	LS132
	T.P.	56.15	67.45	60.80	73.00	S133A	12.00	13.32	LS133
1250	S.P.	21.70	26.10	23.50	28.20	S141A	5.50	6.10	LS141
	D.P.	43.50	52.25	47.05	56.45	S142A	11.00	12.20	LS142
	T.P.	69.65	83.70	75.40	90.50	S143A	16.50	18.30	LS143
1500	S.P.	26.05	31.25	28.20	33.80	S151A	7.00	7.70	LS151
	D.P.	47.85	57.45	51.75	62.15	S152A	14.00	15.40	LS152
	T.P.	74.10	88.95	80.10	96.15	S153A	21.00	23.10	LS153
1750	S.P.	30.40	36.40	32.85	39.45	S161A	8.50	9.40	LS161
	D.P.	52.20	62.65	56.45	67.80	S162A	17.00	18.80	LS162
	T.P.	78.50	94.15	84.80	101.75	S163A	25.50	28.20	LS163
2000	S.P.	33.40	40.00	36.10	43.40	S171A	9.20	10.10	LS171
	D.P.	57.40	68.90	62.05	74.55	S172A	18.40	20.20	LS172
	T.P.	86.35	103.55	93.25	111.90	S173A	27.60	30.30	LS173

The above prices are for switch complete ready for connecting Lugs, but do not include Lugs.

Prices of Lugs in above list are for Standard Single and apply only when Lugs are ordered with Switches.

Polished Switches are Mounted on Marbleized Slate Bases.

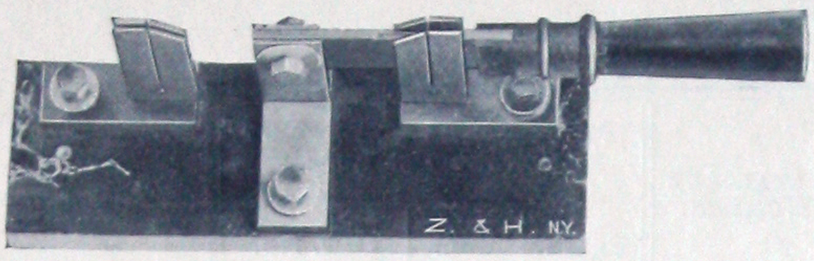
For Switches Mounted on White Italian Marble, add 10 per cent. to above prices.

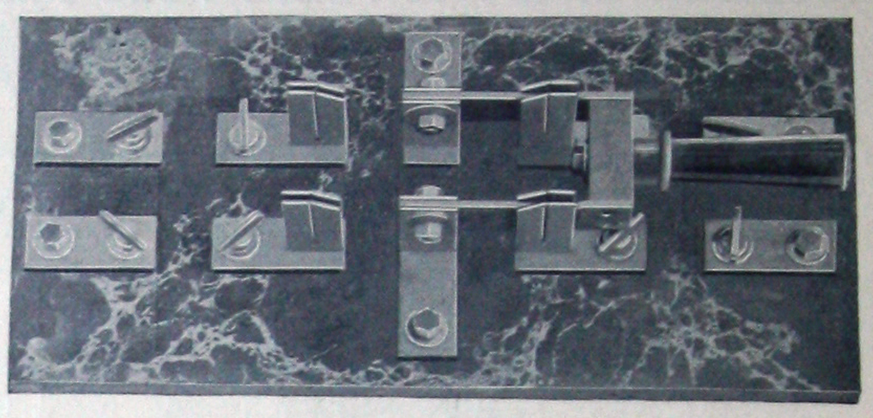
For Prices of Switches smaller than 500 amperes, see page 7.

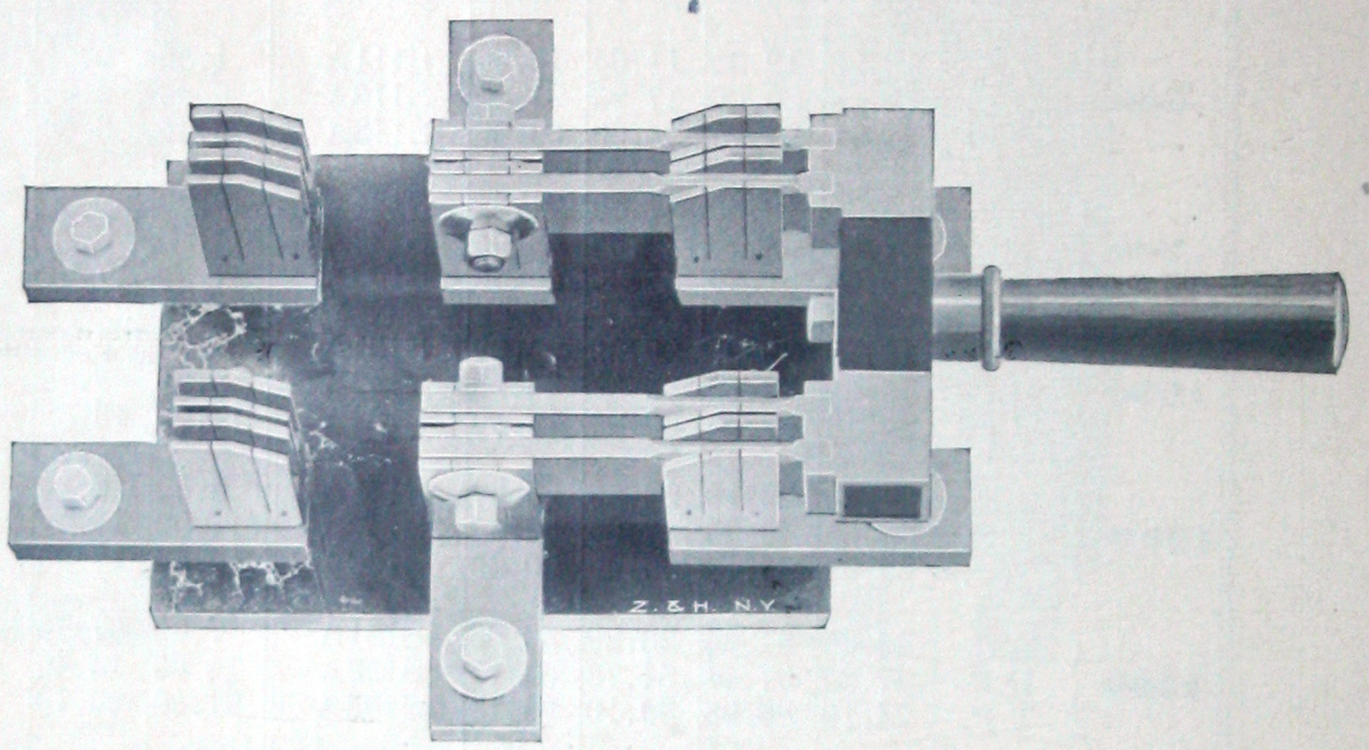
See remarks on page 26 concerning back connections for switch board work.

Standard Type A Switches.

DOUBLE THROW. **LOW TENSION.**







THIS is the Double Throw arrangement of our Standard Type A Model, and the same degree of excellence is maintained that is found in the Single Throw Switches.

The specifications of the Single Throw apply equally to the Double Throw Switches.

Fuse Connections are invariably placed at each end of switch, unless it is definitely stated that they are desired at the middle connections.

Prices and information concerning Back Connections will be found on pages 26 and 27.

---

300 VOLTS. ALL COPPER

...PRICES OF...

Standard Double Throw Knife Switches.

TYPE A.

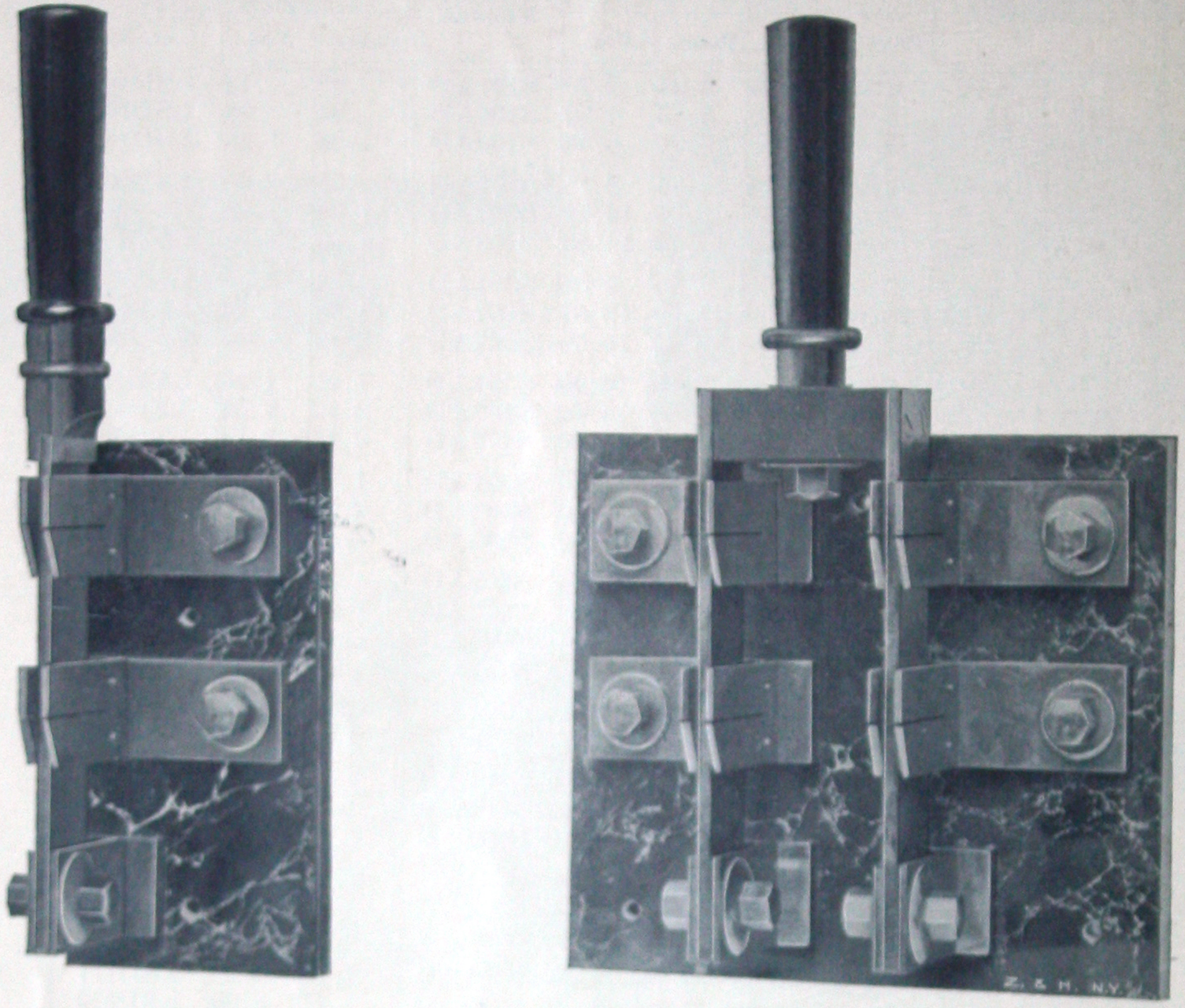
AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS.		WITH FUSE CONNECTIONS.		CATALOGUE NUMBER.	PRICE EXTRA FOR FULL SET OF CONNECTING LUGS.		
		PLAIN.	POL.	PLAIN.	POL.		PLAIN.	POL.	CAT. NO.
25	S.P.	2.05	2.45	2.25	2.70	S101AD	.42	.45	LSD101
	D.P.	3.40	4.10	3.75	4.50	S102AD	.84	.90	LSD102
	T.P.	4.80	5.75	5.25	6.35	S103AD	1.26	1.35	LSD103
50	S.P.	5.90	7.15	6.75	8.15	S201AD	.54	.60	LSD201
	D.P.	8.00	9.65	9.05	10.90	S202AD	1.08	1.20	LSD202
	T.P.	10.65	12.90	12.20	14.65	S203AD	1.62	1.80	LSD203
75	S.P.	6.60	8.00	7.50	9.05	S301AD	.54	.60	LSD301
	D.P.	10.00	12.05	11.30	13.65	S302AD	1.08	1.20	LSD302
	T.P.	14.40	17.45	16.40	19.60	S303AD	1.62	1.80	LSD303
100	S.P.	7.35	8.90	8.30	10.00	S401AD	1.05	1.26	LSD401
	D.P.	12.05	14.50	13.60	16.40	S402AD	2.10	2.52	LSD402
	T.P.	18.20	22.00	20.60	24.70	S403AD	3.15	3.78	LSD403
150	S.P.	8.70	10.50	9.80	11.80	S501AD	1.35	1.56	LSD501
	D.P.	13.95	16.80	15.75	18.90	S502AD	2.70	3.12	LSD502
	T.P.	20.60	24.80	23.25	27.90	S503AD	4.05	4.68	LSD503
200	S.P.	10.10	12.15	11.35	13.60	S601AD	1.65	1.86	LSD601
	D.P.	15.90	19.10	17.90	21.45	S602AD	3.30	3.72	LSD602
	T.P.	23.00	27.65	25.95	31.15	S603AD	4.95	5.58	LSD603
300	S.P.	11.05	13.40	12.50	15.05	S701AD	1.95	2.16	LSD701
	D.P.	18.40	22.10	20.70	24.80	S702AD	3.90	4.32	LSD702
	T.P.	27.05	32.50	30.45	36.60	S703AD	5.85	6.48	LSD703
400	S.P.	12.05	14.55	13.65	16.45	S801AD	2.16	2.46	LSD801
	D.P.	20.95	25.15	23.55	28.25	S802AD	4.32	4.92	LSD802
	T.P.	31.10	37.35	35.05	42.05	S803AD	6.48	7.38	LSD803
500	S.P.	14.75	17.80	16.65	20.05	S901AD	2.16	2.46	LSD901
	D.P.	24.65	29.60	27.70	33.25	S902AD	4.32	4.92	LSD902
	T.P.	36.65	44.00	41.45	49.80	S903AD	6.48	7.38	LSD903
600	S.P.	17.50	21.05	19.70	23.70	S111AD	2.70	3.00	LSD111
	D.P.	28.40	34.05	31.90	38.30	S112AD	5.40	6.00	LSD112
	T.P.	42.25	50.70	47.90	57.55	S113AD	8.10	9.00	LSD113
800	S.P.	28.20	33.85	31.75	38.15	S121AD	3.60	3.90	LSD121
	D.P.	48.10	57.05	53.55	64.30	S122AD	7.20	7.80	LSD122
	T.P.	72.80	87.40	82.05	98.55	S123AD	10.80	11.70	LSD123
1000	S.P.	32.50	39.00	36.75	44.00	S131AD	6.00	6.66	LSD131
	D.P.	61.25	73.00	68.50	82.25	S132AD	12.00	13.32	LSD132
	T.P.	95.75	117.25	108.00	129.75	S133AD	18.00	19.98	LSD133
1250	S.P.	37.00	44.50	41.75	50.25	S141AD	8.25	9.15	LSD141
	D.P.	74.50	89.25	83.75	100.50	S142AD	16.50	18.30	LSD142
	T.P.	119.00	147.50	134.25	161.00	S143AD	24.75	27.45	LSD143
1500	S.P.	44.50	53.50	50.25	60.25	S151AD	10.50	11.55	LSD151
	D.P.	81.75	98.00	92.00	110.75	S152AD	21.00	23.10	LSD152
	T.P.	126.50	154.00	142.50	171.00	S153AD	31.50	34.65	LSD153
1750	S.P.	52.00	62.50	58.75	70.50	S161AD	12.75	14.10	LSD161
	D.P.	89.25	107.00	100.50	121.25	S162AD	25.50	28.20	LSD162
	T.P.	134.00	160.75	151.00	181.00	S163AD	38.25	42.30	LSD163
2000	S.P.	57.00	68.75	64.50	77.50	S171AD	13.80	15.15	LSD171
	D.P.	98.00	117.50	110.50	133.25	S172AD	27.60	30.30	LSD172
	T.P.	147.25	176.75	166.00	199.00	S173AD	41.40	45.45	LSD173

The above prices are for Switch complete, ready for connecting lugs, but do not include lugs. Prices of lugs in above list are for Standard Single, and apply only when lugs are ordered with switches. Polished Switches are mounted on marbleized slate bases. For switches mounted on white Italian marble, add 10 per cent. to above prices.

See Remarks on page 26 concerning Back Connections for Switch Board Work.

Double Break Switches.

TYPE B.



THIS switch has been designed to meet the demand for a first-class all copper double break switch. To those preferring the double break arrangement in a switch we can confidently recommend this article as being strictly high grade in every particular. It is similar in general to our **Standard Type A Single Break Switch,** with the exception of the added clips and clip blocks, and has all the desirable features of that well known type. The sectional areas and contact faces are the same in corresponding sizes of the two types, and this switch is practically an adaptation of our Standard Type A to the double break arrangement.

These switches mount up well in switch board work and we have supplied and used a number of them for that purpose. Price of back connections will be found on pages 26 and 27.

---

300 VOLTS. **PRICE LIST OF** *ALL COPPER.*

DOUBLE BREAK SWITCHES.

TYPE B.

AMPERE CAPACITY.		SINGLE THROW.					DOUBLE THROW.				
		Without Fuse Connections.		With Fuse Connections.		Catalogue Number.	Without Fuse Connections.		With Fuse Connections.		Catalogue Number.
		Plain.	Pol.	Plain.	Pol.		Plain.	Pol.	Plain.	Pol.	
25	S.P.	1.45	1.75	1.60	2.00	S101B	2.70	3.20	2.95	3.60	S101BD
	D.P.	2.45	3.00	2.65	3.25	S102B	4.50	5.45	5.00	6.00	S102BD
	T.P.	3.50	4.25	3.85	4.70	S103B	6.35	7.65	6.95	8.40	S103BD
50	S.P.	4.55	5.50	5.00	6.00	S201B	7.80	9.35	8.80	10.70	S201BD
	D.P.	6.00	7.30	6.60	8.00	S202B	10.50	12.60	11.85	14.25	S202BD
	T.P.	8.15	9.80	8.80	10.65	S203B	13.95	16.80	15.90	19.00	S203BD
75	S.P.	5.10	6.15	5.50	6.60	S301B	8.75	10.50	9.90	11.95	S301BD
	D.P.	7.65	9.15	8.25	10.00	S302B	13.15	15.80	14.85	17.85	S302BD
	T.P.	11.00	13.25	11.85	14.35	S303B	18.90	22.70	21.30	25.60	S303BD
100	S.P.	5.65	6.85	6.10	7.15	S401B	9.70	11.65	10.90	13.15	S401BD
	D P.	9.20	11.05	10.00	12.00	S402B	15.80	19.00	17.80	21.40	S402BD
	T.P.	13.90	16.70	15.00	18.00	S403B	23.80	28.60	26.70	32.10	S403BD
150	S.P.	6.65	8.00	7.15	8.50	S501B	11.45	13.80	12.90	15.45	S501BD
	D.P.	10.60	12.75	11.00	13.75	S502B	18.20	21.90	20.50	24.65	S502BD
	T.P.	15.70	18.85	17.00	20.40	S503B	26.85	32.25	30.25	36.30	S503BD
200	S.P.	7.70	9.25	8.25	10.00	S601B	13.25	15.95	14.90	17.80	S601BD
	D.P.	12.00	14.40	13.00	15.70	S602B	20.65	24.85	23.25	27.90	S602BD
	T.P.	17.50	21.00	18.90	22.75	S603B	29.95	35.95	33.75	40.45	S603BD
300	S.P.	8.45	10.20	9.20	11.00	S701B	14.50	17.50	16.35	19.65	S701BD
	D.P.	13.95	16.75	15.10	18.15	S702B	24.00	28.80	27.00	32.35	S702BD
	T.P.	20.55	24.70	22.25	26.65	S703B	35.20	42.30	39.70	47.55	S703BD
400	S.P.	9.25	11.60	10.00	12.00	S801B	15.75	18.90	17.75	21.35	S801BD
	D.P.	15.90	19.10	17.20	20.65	S802B	27.25	32.75	30.65	36.80	S802BD
	T.P.	23.65	28.40	25.60	30.75	S803B	40.40	48.50	45.50	54.65	S803BD
500	S.P.	11.25	13.80	12.15	14.60	S901B	19.25	23.15	21.70	26.15	S901BD
	D.P.	18.70	22.50	20.20	24.25	S902B	32.10	38.55	36.10	43.35	S902BD
	T.P.	27.90	33.55	30.30	36.40	S903B	47.65	57.25	53.95	64.75	S903BD
600	S.P.	13.40	16.05	14.40	17.30	S111B	22.80	27.40	25.65	30.80	S111BD
	D.P.	21.55	25.90	23.25	27.95	S112B	36.95	44.35	41.50	49.80	S112BD
	T.P.	32.25	38.75	35.05	42.10	S113B	54.90	65.90	62.30	74.85	S113BD
800	S.P.	21.45	25.85	23.25	27.90	S121B	36.70	44.05	41.35	49.65	S121BD
	D.P.	36.05	44.40	39.10	47.00	S122B	62.60	74.20	69.70	83.70	S122BD
	T.P.	55.50	66.60	60.00	72.05	S123B	94.70	113.65	106.75	128.15	S123BD
1000	S.P.	24.90	29.90	26.90	32.30	S131B	42.45	51.00	47.80	57.45	S131BD
	D.P.	46.35	56.20	50.15	60.20	S132B	79.70	95.20	89.20	107.20	S132BD
	T.P.	73.10	87.75	78.05	94.90	S133B	124.70	152.70	140.60	168.70	S133BD
1250	S.P.	28.30	34.00	30.60	36.70	S141B	48.25	58.00	54.50	65.25	S141BD
	D.P.	56.60	68.00	61.20	73.45	S142B	96.75	116.25	109.00	130.75	S142BD
	T.P.	90.70	108.90	98.05	117.70	S143B	154.75	191.75	174.25	209.25	S143BD
1500	S.P.	33.95	40.70	36.70	44.05	S151B	58.00	69.50	65.25	78.25	S151BD
	D.P.	62.30	74.80	67.30	80.80	S152B	106.25	127.50	120.00	144.25	S152BD
	T.P.	96.40	115.70	104.20	125.00	S153B	164.00	200.00	185.25	222.25	S153BD
1750	S.P.	39.50	47.50	42.75	51.50	S161B	67.50	81.00	76.00	91.50	S161BD
	D.P.	68.00	81.50	73.50	88.25	S162B	116.00	139.00	130.50	157.50	S162BD
	T.P.	102.00	122.50	110.25	132.50	S163B	174.00	209.00	196.00	235.00	S163BD
2000	S.P.	43.50	52.25	47.00	56.50	S171B	74.00	89.00	83.50	100.50	S171BD
	D.P.	74.75	89.75	80.75	97.00	S172B	127.00	152.50	143.50	173.00	S172BD
	T.P.	112.25	134.75	121.25	145.75	S173B	191.00	229.50	215.50	258.50	S173BD

The above prices are for Switch complete, ready for connecting lugs, but do not include lugs. Polished Switches are mounted on marbleized slate bases. For Switches mounted on white Italian marble, add 10 per cent. to above prices.

See Remarks on page 26 concerning Back Connections for Switch Board Work.

Switches for Heavy Currents

ABOVE 2,000 AMPERES.

WHILE the Switches in this catalogue are only listed up to 2,000 Amperes capacity, we are prepared to quote prices on any of the sizes above this in any of our regular or special types, or on special designs furnished by us or by customer. Our experience in designing and building switches for use under trying conditions enables us to quickly and accurately determine a customer's needs when he is confronted by problems in the handling and breaking of large currents. Customers will sometimes save themselves needless trouble and expense by communicating with us at once under such circumstances.

Special Switches.

WE make a variety of Special Switches and can quote figures on them immediately upon receipt of letter stating requirements.

Carbon Break Switches and Unit Blade Switches can be furnished on short notice and figures on them will be quoted by return mail.

We are extensive designers and builders of Special Current Breaking Apparatus for all purposes and have in our factory drawings and patterns of apparatus and devices especially suited for many classes of special work.

Railway Switches

FOR USE OF 500 VOLT POWER CIRCUITS.

ON the four pages following will be found prices and illustrations of Switches especially designed for use on 500 volt power circuits. The same standard of excellence has been maintained in these switches that is found in the low tension types. The design and workmanship is all that could be desired, pure copper as in all our switches being used throughout all current carrying parts. To reduce the possibility of drawing an arc when breaking the circuit a wide break space is provided; greater distance between parts of opposite polarity is also allowed. Insulation has been carefully looked after, and none but the best grades of insulating materials have been used.

Contractors and others desiring a first-class switch for 500 volt power circuits will find the **Type C** switches especially adapted when a quick break switch is not desired. We are supplying large quantities of them for various classes of motor work. It is also a desirable type for switch board work when a quick break switch is not required.

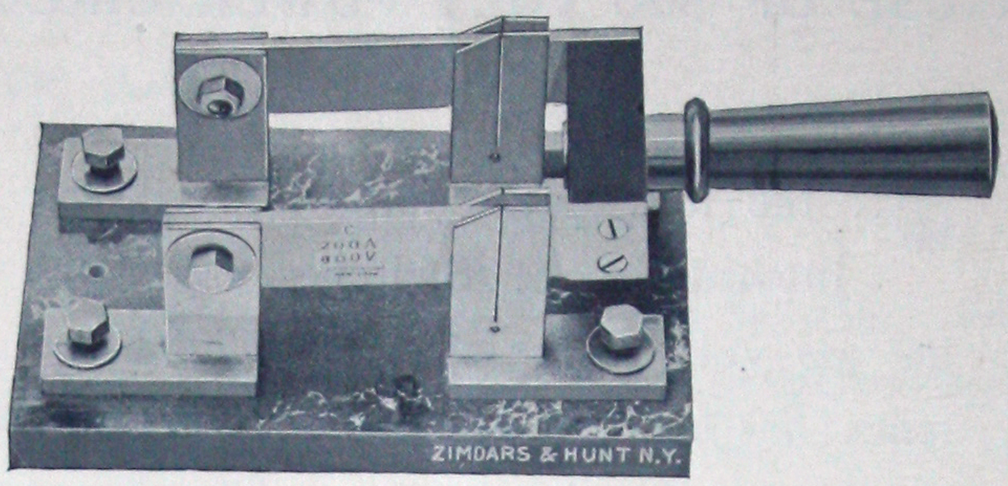
The quick break switch, **Type D,** has been designed after a careful study of the conditions to be met, and we believe its many points of superiority will be recognized. Extended descriptive matter concerning this type will be found on page 18.

Parties contemplating building or extending power station switch boards will do well by conferring with us before placing orders for switch equipments.

RAILWAY SWITCHES.

TYPE C.

500 Volt.



Single Throw.

This Switch is recommended for use on 500 volt power circuits when a quick break switch is not desired; it is similar in design and construction to our standard 300 volt switch, with the exception that it has a greater break space and has greater distance between parts of opposite polarity.

PRICES OF 500 VOLT SINGLE THROW SWITCHES.

AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS. PLAIN.	WITHOUT FUSE CONNECTIONS. POL.	WITH FUSE CONNECTIONS. PLAIN.	WITH FUSE CONNECTIONS. POL.	CAT. NUMBER.
25	S.P.	1.40	1.70	1.55	1.90	S101C
	D.P.	2.40	2.85	2.75	3.25	S102C
	T.P.	3.50	4.15	3.90	4.65	S103C
50	S.P.	4.40	5.40	4.85	5.90	S201C
	D.P.	5.90	7.05	6.40	7.70	S202C
	T.P.	8.10	9.70	8.80	10.40	S203C
75	S.P.	4.80	5.95	5.35	6.60	S301C
	D.P.	7.40	8.85	8.00	9.90	S302C
	T.P.	10.75	13.05	11.65	14.05	S303C
100	S.P.	5.30	6.55	5.85	7.50	S401C
	D.P.	8.95	10.80	9.60	11.75	S402C
	T.P.	13.50	16.40	14.65	17.75	S403C
150	S.P.	6.50	7.85	7.00	8.35	S501C
	D.P.	10.45	12.60	10.85	13.60	S502C
	T.P.	15.55	18.70	16.85	20.25	S503C
200	S.P.	7.55	9.10	8.10	9.85	S601C
	D.P.	11.85	14.25	12.85	15.55	S602C
	T.P.	17.35	20.85	18.75	22.60	S603C
300	S.P.	8.30	10.05	9.05	10.85	S701C
	D.P.	13.80	16.60	14.95	18.00	S702C
	T.P.	20.40	24.55	22.10	26.50	S703C
400	S.P.	9.05	11.40	9.80	11.80	S801C
	D.P.	15.70	18.90	17.00	20.45	S802C
	T.P.	23.45	28.20	25.40	30.55	S803C
500	S.P.	11.05	13.60	12.00	14.40	S901C
	D.P.	18.50	22.30	20.00	24.05	S902C
	T.P.	27.70	33.35	30.10	36.20	S903C
600	S.P.	13.15	15.80	14.15	17.05	S111C
	D.P.	21.30	25.65	23.00	27.70	S112C
	T.P.	32.00	38.50	34.80	41.85	S113C
800	S.P.	21.15	25.55	22.95	27.60	S121C
	D.P.	35.75	44.10	38.80	46.70	S122C
	T.P.	55.20	66.30	59.70	71.75	S123C
1000	S.P.	24.50	29.50	26.50	31.90	S131C
	D.P.	45.95	55.80	49.75	59.80	S132C
	T.P.	72.70	87.35	77.65	94.50	S133C
1250	S.P.	27.80	33.50	30.10	36.20	S141C
	D.P.	56.10	67.50	60.80	72.95	S142C
	T.P.	90.20	100.40	97.55	117.20	S143C
1500	S.P.	32.95	39.70	35.70	43.05	S151C
	D.P.	61.30	73.80	66.30	79.80	S152C
	T.P.	95.40	114.70	103.20	124.00	S153C
1750	S.P.	37.50	45.50	40.75	49.50	S161C
	D.P.	66.00	79.50	71.50	86.25	S162C
	T.P.	100.00	120.50	108.25	130.50	S163C
2000	S.P.	40.50	49.25	44.00	53.50	S171C
	D.P.	71.75	86.75	77.75	94.00	S172C
	T.P.	109.25	131.75	118.25	142.75	S173C

FOR BACK CONNECTIONS TO THESE SWITCHES, SEE PAGES 26 AND 27.
FOR PRICES OF CONNECTING LUGS OR TERMINALS, SEE PAGES 7, 9 AND 23.

Polished Switches mounted on Marbleized Slate Bases.

LONG BREAK. *ALL COPPER*

RAILWAY SWITCHES.

TYPE C.

DOUBLE THROW.

500 VOLTS.

This Switch is the same Model as the Single Throw Switch illustrated on opposite page.

PRICES OF 500 VOLT DOUBLE THROW SWITCHES.

AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS. PLAIN.	WITHOUT FUSE CONNECTIONS. POL.	WITH FUSE CONNECTIONS. PLAIN.	WITH FUSE CONNECTIONS. POL.	CAT. NUMBER.
25	S.P.	2.60	3.10	2.85	3.50	S101CD
	D.P.	4.40	5.35	4.90	5.90	S102CD
	T.P.	6.25	7.55	6.84	8.30	S103CD
50	S.P.	7.60	9.15	8.60	10.50	S201CD
	D.P.	10.30	12.40	11.65	14.05	S202CD
	T.P.	13.75	16.60	15.70	18.80	S203CD
75	S.P.	8.55	10.30	9.70	11.75	S301CD
	D.P.	12.95	15.60	14.65	17.65	S302CD
	T.P.	18.70	22.50	21.10	25.40	S303CD
100	S.P.	9.40	11.35	10.60	12.85	S401CD
	D.P.	15.50	18.70	17.50	21.10	S402CD
	T.P.	23.50	28.30	26.40	31.80	S403CD
150	S.P.	11.05	13.40	12.50	15.05	S501CD
	D.P.	17.80	21.50	20.10	24.25	S502CD
	T.P.	26.45	31.85	29.85	35.90	S503CD
200	S.P.	12.85	15.55	14.50	17.40	S601CD
	D.P.	20.25	24.45	22.85	27.50	S602CD
	T.P.	29.55	35.55	33.35	40.05	S603CD
300	S.P.	14.00	17.00	15.85	19.15	S701CD
	D.P.	23.50	28.30	26 50	31.85	S702CD
	T.P.	34.70	41.80	39.20	47.05	S703CD
400	S.P.	15.25	18.40	17.25	20.85	S801CD
	D.P.	26.75	32.25	30.15	36.30	S802CD
	T.P.	39.90	48.00	45.00	54.15	S803CD
500	S.P.	18.25	22.15	20.70	25.15	S901CD
	D.P.	31.10	37.55	35.10	42.35	S902CD
	T.P.	46.65	56.25	52.95	63.75	S903CD
600	S.P.	20.80	25.40	23.65	28.80	S111CD
	D.P.	34.95	42.35	39.50	47.80	S112CD
	T.P.	52.90	63.90	60.30	72.85	S113CD
800	S.P.	33.70	41.05	38.35	46.65	S121CD
	D.P.	59.60	71.20	66.70	80.70	S122CD
	T.P.	91.70	110.65	103.75	125.15	S123CD
1000	S.P.	38.45	47.00	43.80	53.45	S131CD
	D.P.	75.70	91.20	85.20	103.20	S132CD
	T.P.	120.70	148.70	136.60	164.70	S133CD
1250	S.P.	43.25	53.00	49.50	60.25	S141CD
	D.P.	91.75	111.25	104.00	125.75	S142CD
	T.P.	149.75	186.75	169.25	204.25	S143CD
1500	S.P.	52.00	63.50	59.25	72.25	S151CD
	D.P.	100.25	121.50	114.00	138.25	S152CD
	T.P.	158.00	194.00	179.25	216.25	S153CD
1750	S.P.	60.50	76.00	69.00	84.50	S161CD
	D.P.	109.00	132.00	123.50	150.50	S162CD
	T.P.	167.00	202.00	189.00	228.00	S163CD
2000	S.P.	66.00	81.00	75.50	92.50	S171CD
	D.P.	119.00	144.50	135.50	165.00	S172CD
	T.P.	183.00	221.50	207.50	250.50	S173CD

FOR BACK CONNECTIONS TO THESE SWITCHES SEE PAGES 26 AND 27.

FOR PRICES OF CONNECTING LUGS OR TERMINALS SEE PAGES 11 AND 23.

Polished Switches Mounted on Marbleized Slate Bases.

QUICK BREAK SWITCHES

TYPE D,

For Railways and Direct and Alternating Current Power Circuits.

THE Switch illustrated on opposite page has been designed for use on 500 volt railway circuits and high tension transmission lines where a long, quick break is required to prevent a destructive arc from forming at contacts.

In the design it is believed the acme of simplicity has been reached. As will be seen from the illustration, the break is made while the blade is under tension of a spiral compression spring and consequently takes place instantaneously; in contrast to the elaborate, and in some cases flimsy, springs so common in many types of quick break switches, the small bronze spring in use here will be noted. This spring, being located at the end of the blade, is out of the way of the operator. None but the finest brands of bronze spring wire are used for these springs, which, while making them eminently tough and reliable, matches the other metal parts and adds to the general appearance of the completed switch.

As in all our types, the contacts in these switches are large and well fitted, and are so proportioned as to allow a large margin for overload.

Great attention has been given to mechanical points, both in the design and construction, and we believe this switch to be free from the many defects so common in a large number of the quick break switches now on the market.

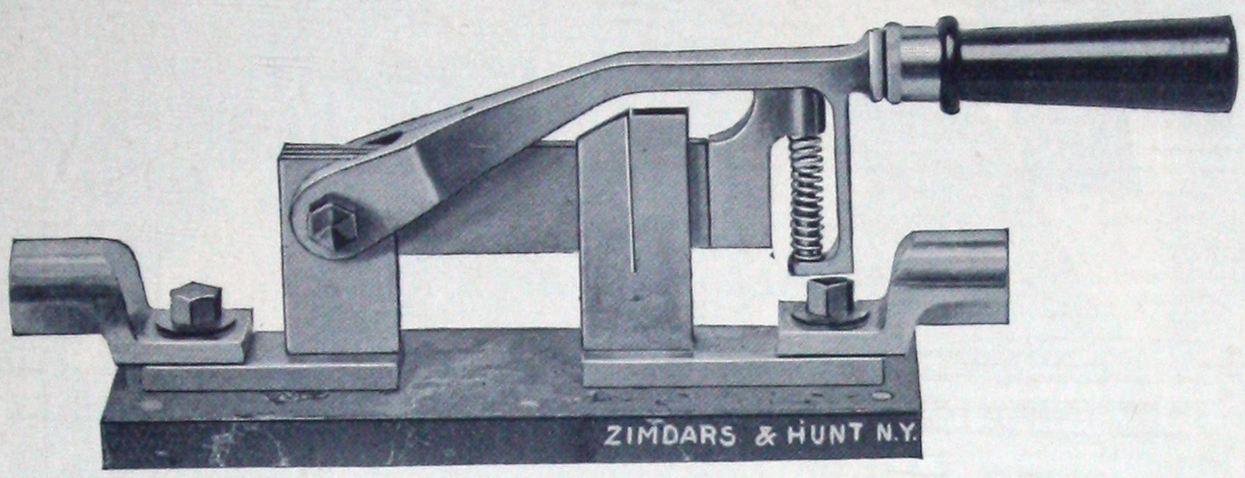
The single pole switches will be found especially desirable for railway feeders, and the double and triple pole for generators and single and multi phase alternating current work.

RAILWAY SWITCHES.

QUICK BREAK.

TYPE D.

500 VOLT.



LONG BREAK

CURRENT CARRYING PARTS PURE COPPER OF HIGHEST CONDUCTIVITY.

For Direct and Alternating Current Power Circuits.

Price List of Quick Break Railway Switches--Type D.

AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS. PLAIN.	WITHOUT FUSE CONNECTIONS. POL.	WITH FUSE CONNECTIONS. PLAIN.	WITH FUSE CONNECTIONS. POL.	CAT. NUMBER.
250	S.P.	12.60	18.00	14.00	19.30	S101D
	D.P.	21.60	28.80	24.50	31.60	S102D
	T.P.	30.60	39.60	35.20	44.00	S103D
500	S.P.	21.50	28.70	23.70	30.70	S201D
	D.P.	34.10	43.10	38.60	47.40	S202D
	T.P.	46.70	59.30	53.50	66.00	S203D
750	S.P.	33.20	40.40	36.00	43.10	S301D
	D.P.	50.20	62.00	56.30	67.70	S302D
	T.P.	67.40	82.70	76.50	91.40	S303D

AMPERE CAPACITY.		WITHOUT FUSE CONNECTIONS. PLAIN.	WITHOUT FUSE CONNECTIONS. POL.	WITH FUSE CONNECTIONS. PLAIN.	WITH FUSE CONNECTIONS. POL.	CAT. NUMBER.
1000	S.P.	40.00	49.00	43.00	51.60	S401D
	D.P.	62.00	72.00	67.00	77.00	S402D
	T.P.	82.00	100.00	91.00	109.00	S403D
1500	S.P.	54.00	66.00	58.00	70.00	S501D
	D.P.	83.00	97.00	90.00	104.00	S502D
	T.P.	110.00	135.00	122.00	146.00	S503D
2000	S.P.	70.00	86.00	74.00	90.00	S601D
	D.P.	108.00	126.00	118.00	135.00	S602D
	T.P.	145.00	176.00	160.00	191.00	S603D

FOR BACK CONNECTIONS TO THESE SWITCHES, SEE PAGES 26 AND 27.

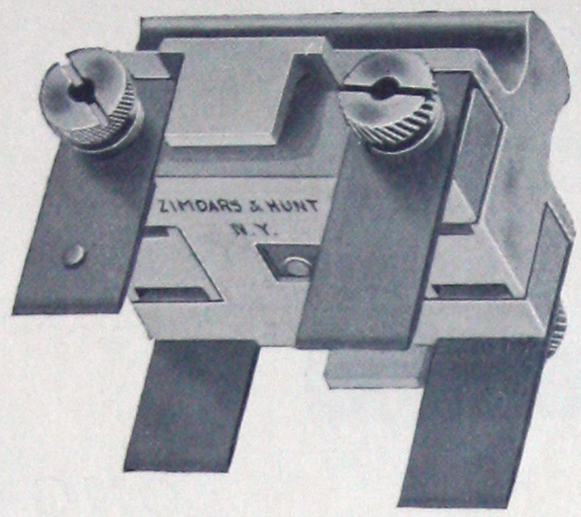
FOR PRICES OF CONNECTING LUGS, SEE PAGES 23, 24 AND 25.

Polished Switches are mounted on Marbleized Slate Bases.

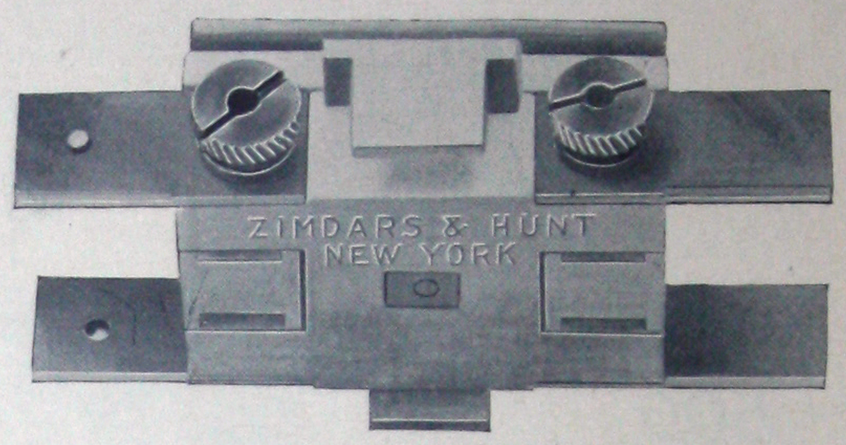
ZIMDARS & HUNT, NEW YORK.

REMOVABLE FUSE HOLDERS.

PAT. PENDING.



TYPE A.



TYPE B.

CUTS HALF SIZE OF 25 AMP.

THE device illustrated above in conjunction with suitable clips makes a desirable substitute for a fused knife switch where economy of space is important. As will be seen from the illustrations, the fuse is attached directly to the switch blades, and thus does away with the necessity of having separate fuse connections provided on clip blocks. The two blades at one end are provided with pins which fit into appropriate slots in the clips, and when so arranged the fuse holder can be operated in the same manner as an ordinary knife switch. When the fuse melts from any cause the fuse holder can be lifted out and taken away to be re-fused at any convenient place, or, as the fuse holders of the same type and size are interchangeable, a previously fused holder can be substituted. Guards are located over the fuse and prevent the fused metal from reaching the hand should the fuse blow while the holder is being inserted.

The sectional areas and contact faces in both types of these fuse holders are the same as those in the corresponding sizes of our knife switches.

While we make the two types of fuse holders, the Type A is recommended on account of the smaller space it requires.

We have been supplying large quantities of the Type A for the finest classes of panel board work.

PRICES OF REMOVABLE FUSE HOLDERS.

DOUBLE POLE.

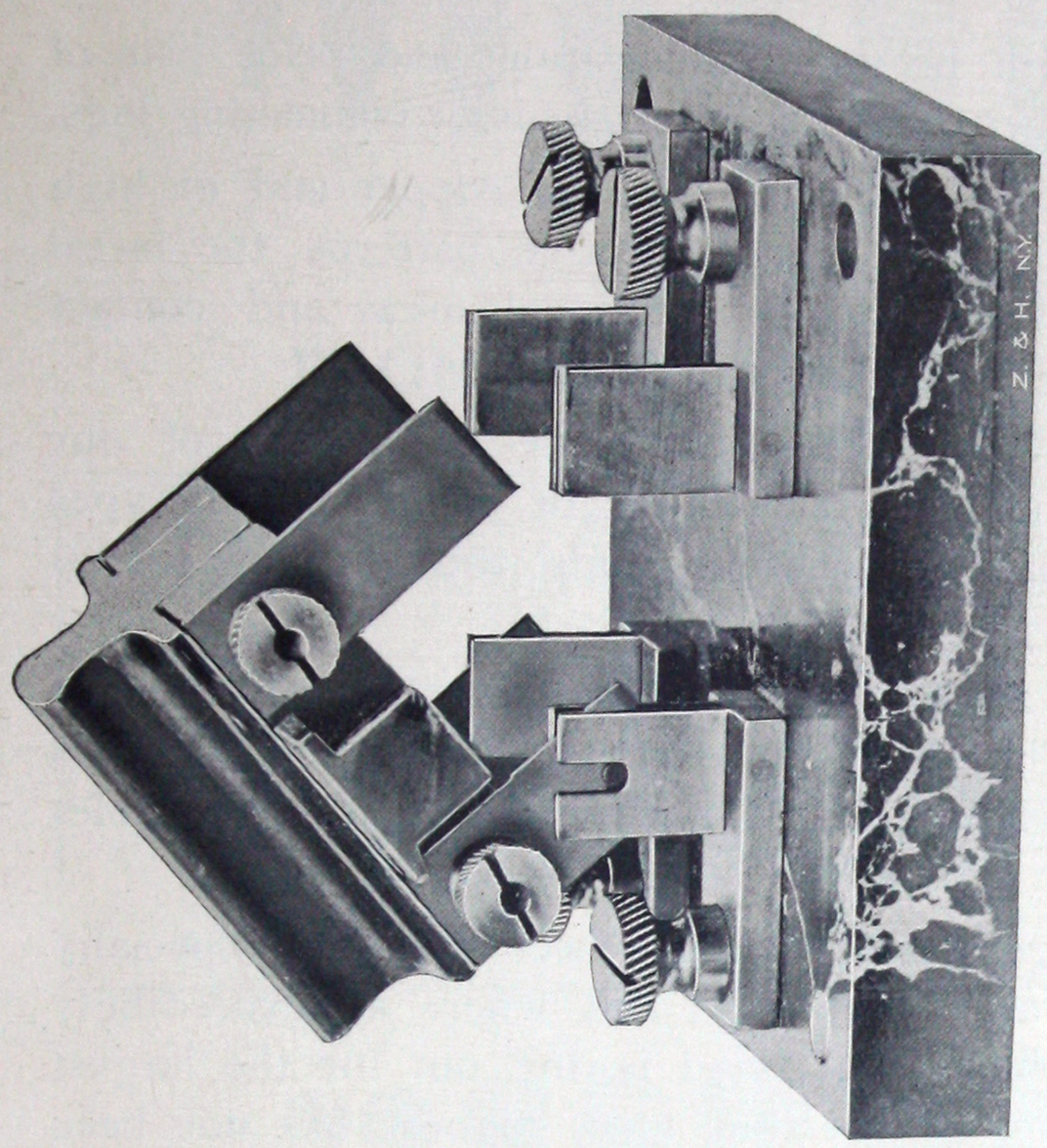
Made in Double Pole only, at present. **Furnished in White or Stained Porcelain, as desired.**

AMPERES.	TYPE A.		TYPE B.	
	PRICE.	CAT. NO.	PRICE.	CAT. NO.
25	.60	FH102A	.70	FH102B
50	2.00	FH202A	2.25	FH202B

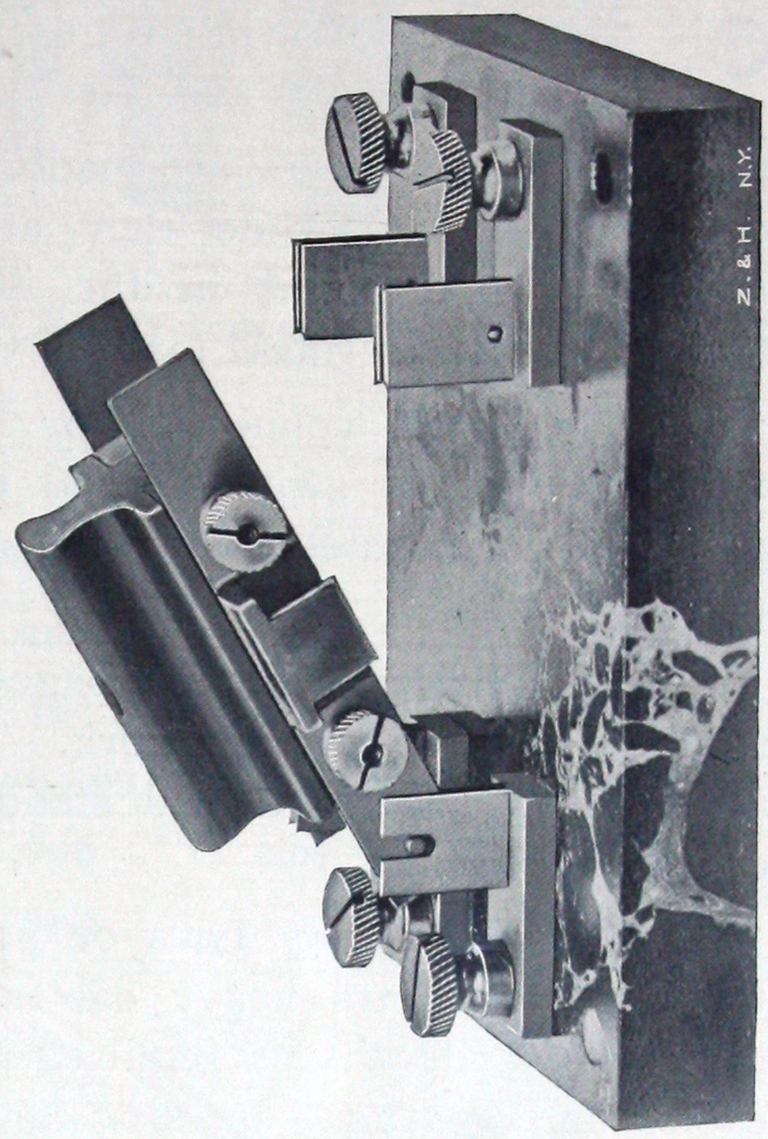
ZIMDARS & HUNT, NEW YORK.

Removable Fuse Holder Switches.

PAT. PENDING.



TYPE A.



TYPE B.

IN the above illustrations are shown the two types of fuse holders, illustrated and described on opposite page, mounted up with clips, clip blocks, etc., as knife switches. When arranged in this manner on separate bases they take the place of ordinary fuse switches and have the added advantages pointed out on previous page.

The prices of the complete articles are given below.

PRICES OF DOUBLE POLE FUSE HOLDER SWITCHES.

AMPERES.	TYPE A.			TYPE B.		
	PRICE.		CAT. NUMBER.	PRICE.		CAT. NUMBER.
	PLAIN.	POL.		PLAIN.	POL.	
25	2.00	2.25	FHS102A	2.25	2.50	FHS102B
50	4.60	5.60	FHS202A	5.00	6.00	FHS202B

ZIMDARS & HUNT, NEW YORK.

Wire and Cable Terminals or Connecting Lugs.

ON the three following pages will be found illustrations and price lists of our various types and sizes of wire and cable terminals or connecting lugs.

All of our lugs are made of a red metal rich in copper and of high conductivity and while they are of neat and effective patterns the metal has been so disposed in the design that the sectional areas and contact faces carry their rated load at very low current densities.

The front connection or switch types are made to fit any of our regular types of switches, and the back connection or switch board types mount up accurately with the back connection studs and nuts of corresponding sizes.

The **Standard Types** on page 23 will be found suitable for all ordinary front or back connection work. They have large contact faces and sectional areas throughout, and will stand boring out for any of the sizes of cables ordinarily used.

The **Extra Heavy Types** on pages 24 and 25 have been designed especially for use when extra heavy cables are to be used and where an exceedingly low current density is required. They will stand boring out for the largest cables and are very massive in appearance, but mere bigness has not been aimed at but results from a liberal and judicious distribution of the metal in them.

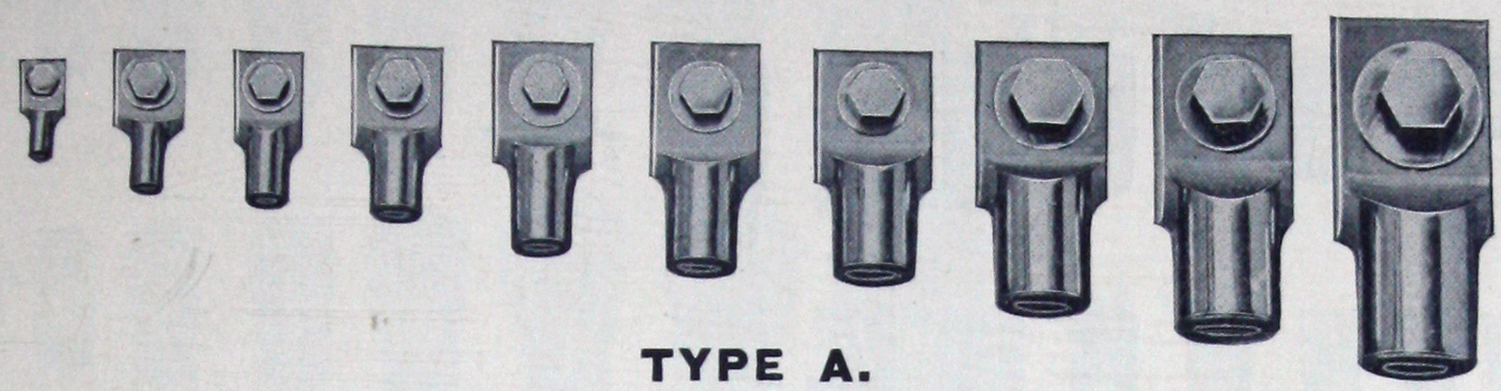
Double Lugs are made to match corresponding sizes of single lugs in the extra heavy types and will stand boring out for two cables of the largest size the single lugs of corresponding size will take. These double lugs will be found especially useful where several switches are fed from one set of mains or feeders, and in the larger sizes where double cables are run direct to the switches or bus bars.

On account of the greater amount of metal contained in the extra heavy lugs, the prices will be found to be somewhat higher than those of the corresponding sizes of the standard lugs.

SPECIAL LUGS

In addition to the lugs listed on the following pages we make a variety of special lugs and terminals for all purposes, upon which quotations will be promptly furnished on request.

STANDARD CONNECTING LUGS.

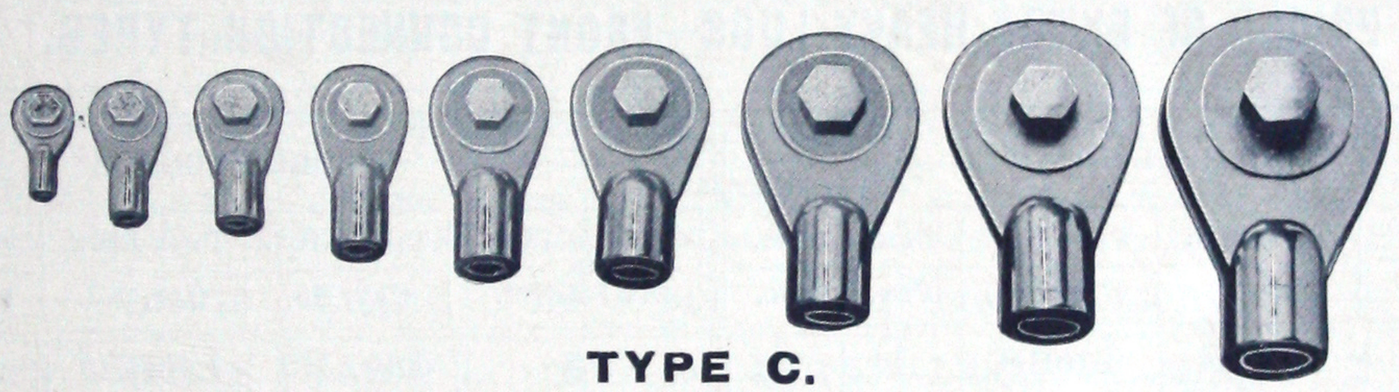


TYPE A.

FRONT CONNECTION SWITCH TYPE,

PRICE LIST.

CAPACITY IN AMPERES.	PRICE EACH PLAIN.	PRICE EACH POLISHED	CATALOGUE NUMBER.	CAPACITY IN AMPERES.	PRICE EACH PLAIN.	PRICE EACH POLISHED	CATALOGUE NUMBER.
25	.12	.18	L10A	**200**	.50	.64	L60A
50	.16	.24	L20A	**300**	.64	.78	L70A
75	.18	.28	L30A	**400-500**	.72	.88	L90A
100	.28	.40	L40A	**600**	1.00	1.20	L11A
150	.38	.52	L50A	**800**	1.20	1.40	L12A



TYPE C.

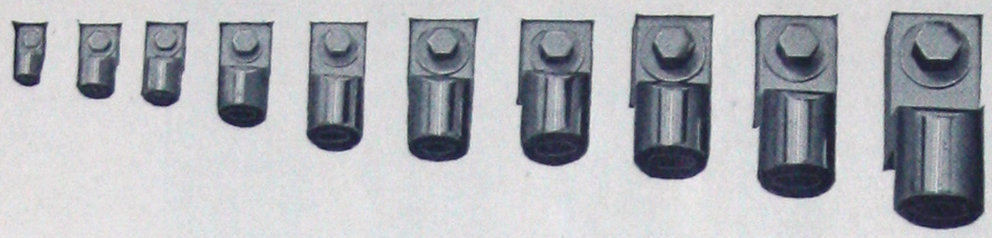
BACK CONNECTION SWITCH BOARD TYPE,

PRICE LIST.

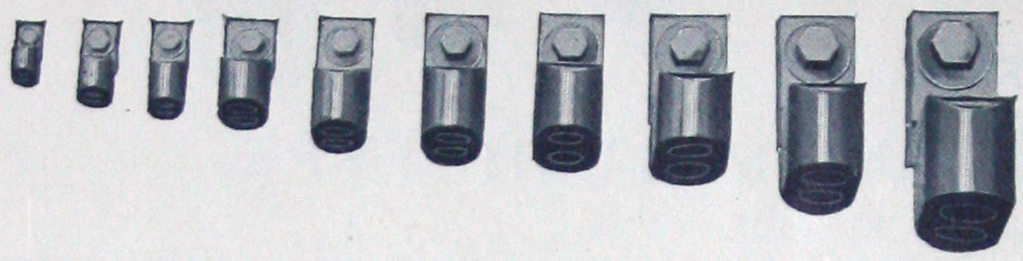
CAPACITY IN AMPERES.	PRICE EACH PLAIN.	PRICE EACH POLISHED	CATALOGUE NUMBER.	CAPACITY IN AMPERES.	PRICE EACH PLAIN.	PRICE EACH POLISHED	CATALOGUE NUMBER.
25	.13	.20	L10C	**600**	1.10	1.30	L11C
50-75	.18	.28	L30C	**800**	1.40	1.60	L12C
100	.28	.40	L40C	**1000**	2.30	2.60	L13C
150	.38	.52	L50C	**1250**	3.00	3.35	L14C
200	.48	.62	L60C	**1500**	3.75	4.15	L15C
300	.62	.74	L70C	**1750**	4.50	5.00	L16C
400-500	.74	.90	L90C	**2000**	5.50	6.05	L17C

IN ORDERING CONNECTING LUGS ALWAYS GIVE SIZE OF WIRE OR CABLE THEY ARE TO BE DRILLED FOR.

EXTRA HEAVY LUGS.

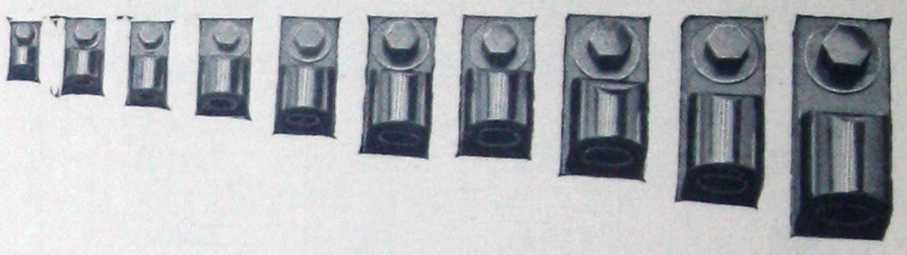


TYPE AH.

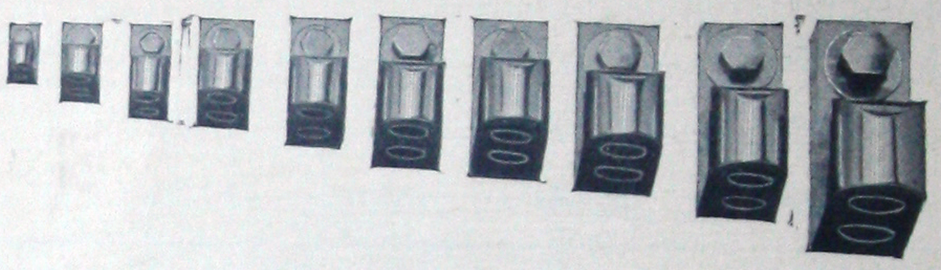


TYPE AH2.

TYPE BH.



TYPE BH2.



PRICES OF EXTRA HEAVY LUGS—FRONT CONNECTION TYPES.

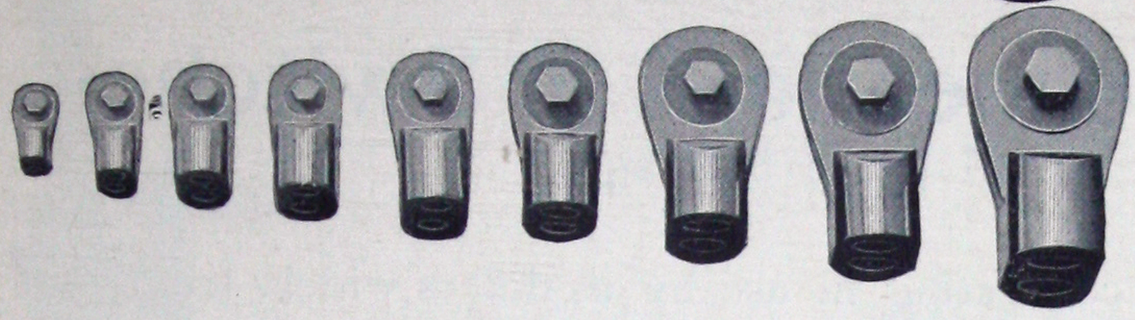
SINGLE LUGS.					DOUBLE LUGS.				
CAPACITY IN AMPERES.	TYPE AH. CAT. NO.	TYPE BH. CAT. NO.	PRICE EACH. PLN.	PRICE EACH. POL.	CAPACITY IN AMPERES.	TYPE AH 2. CAT. NO.	TYPE BH 2. CAT. NO.	PRICE EACH. PLN.	PRICE EACH. POL.
25	L10AH	L10BH	.14	.22	**25**	L10AH2	L10BH2	.20	.32
50	L20AH	L20BH	.18	.28	**50**	L20AH2	L20BH2	.24	.42
75	L30AH	L30BH	.20	.32	**75**	L30AH2	L30BH2	.30	.52
100	L40AH	L40BH	.32	.44	**100**	L40AH2	L40BH2	.48	.69
150	L50AH	L50BH	.44	.66	**150**	L50AH2	L50BH2	.74	1.03
200	L60AH	L60BH	.62	.82	**200**	L60AH2	L60BH2	1.00	1.28
300	L70AH	L70BH	.74	.96	**300**	L70AH2	L70BH2	1.16	1.49
400-500	L90AH	L90BH	1.02	1.25	**400-500**	L90AH2	L90BH2	1.57	1.92
600	L11AH	L11BH	1.27	1.54	**600**	L11AH2	L11BH2	1.88	2.28
800	L12AH	L12BH	1.92	2.24	**800**	L12AH2	L12BH2	3.00	3.49
1000	L13AH	L13BH	2.60	2.94	**1000**	L13AH2	L13BH2	4.20	4.75

IN ORDERING CONNECTING LUGS, ALWAYS GIVE SIZE OF WIRE OR CABLE THEY ARE TO BE DRILLED FOR.

EXTRA HEAVY LUGS.

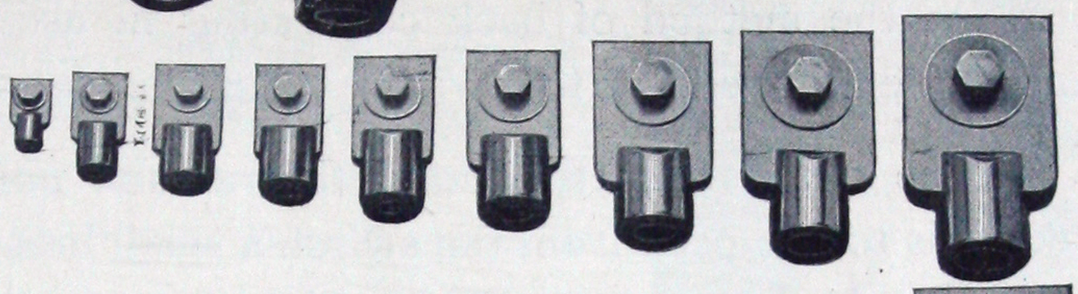


TYPE CH.

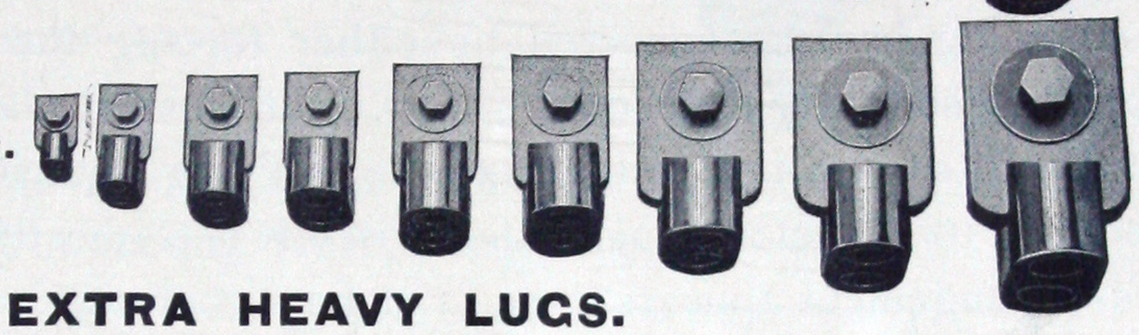


TYPE CH2.

TYPE DH.



TYPE DH2.



PRICES OF EXTRA HEAVY LUGS.

SWITCHBOARD TYPES.

SINGLE LUGS.					DOUBLE LUGS.				
CAPACITY IN AMPERES.	TYPE CH. CAT. NO.	TYPE DH. CAT. NO.	PRICE EACH. PLAIN.	POL.	CAPACITY IN AMPERES.	TYPE CH2. CAT. NO.	TYPE DH2. CAT. NO.	PRICE EACH. PLAIN.	POL.
25	L10CH	L10DH	.16	.24	**25**	L10CH2	L10DH2	.22	.34
50-75	L30CH	L30DH	.20	.30	**50-75**	L30CH2	L30DH2	.31	.48
100	L40CH	L40DH	.33	.47	**100**	L40CH2	L40DH2	.54	.75
150	L50CH	L50DH	.40	.59	**150**	L50CH2	L50DH2	.78	1.07
200	L60CH	L60DH	.60	.80	**200**	L60CH2	L60DH2	1.05	1.35
300	L70CH	L70DH	.75	.98	**300**	L70CH2	L70DH2	1.19	1.52
400-500	L90CH	L90DH	1.17	1.41	**400-500**	L90CH2	L90DH2	1.79	2.15
600	L11CH	L11DH	1.57	1.84	**600**	L11CH2	L11DH2	2.19	2.59
800	L12CH	L12DH	2.42	2.74	**800**	L12CH2	L12DH2	3.38	3.86
1000	L13CH	L13DH	3.10	3.45	**1000**	L13CH2	L13DH2	4.58	5.13
1250	L14CH	L14DH	3.95	4.35	**1250**	L14CH2	L14DH2	5.77	6.37
1500	L15CH	L15DH	4.70	5.15	**1500**	L15CH2	L15DH2	7.00	7.70
1750	L16CH	L16DH	5.60	6.10	**1750**	L16CH2	L16DH2	8.25	9.00
2000	L17CH	L17DH	6.60	7.20	**2000**	L17CH2	L17DH2	9.50	10.50

In ordering Connecting Lugs always give size of wire or cable they are to be drilled for.

Studs and Nuts : : : :

FOR

Back Connections to Switches.

As the method of back connecting in use by us differs widely from that generally employed, the following explanation regarding it is offered:

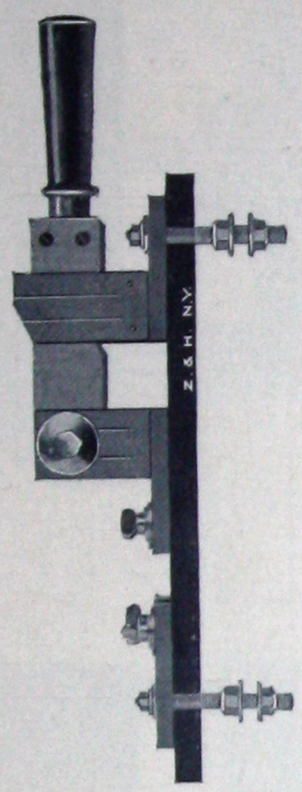
The cheapest method, and that almost universally employed by switch makers, is to run back from the switch a small brass stud to which the bus bar or connecting bar is connected by either forcing the bar, with a small brass nut, against a shoulder made on the stud, or at most by clamping the bar between two of the nuts (with the result that the carrying capacity of the back connection is reduced to far below that of the switch it is connected with). The main object of this arrangement appears to be to make a good mechanical connection without any regard to its fitness for use as a current carrying device. And, as the back connections are out of view, the heating of them when made in this way goes on unnoticed until some inflammable material is accidently brought into contact with them, when their condition is quickly and forcibly brought to the operator's attention.

In the **method used by us** a large **Soft Drawn Copper Stud** is screwed into the switch clip or fuse block and sweated there, an extension being left above the block, on which a neat, ornamental cap nut is screwed. On the back or bar connecting end are threaded two or more large red metal nuts, the areas of whose contact faces are known. Between these nuts are clamped the bus or connecting bars. All parts of these connections have been calculated with the greatest care in accordance with the latest theoretical deductions and experimental data, and engineers and others can rely on them being equal in carrying capacity through all their sections and contact faces to the switches they are connected with. Full technical data will be furnished upon application.

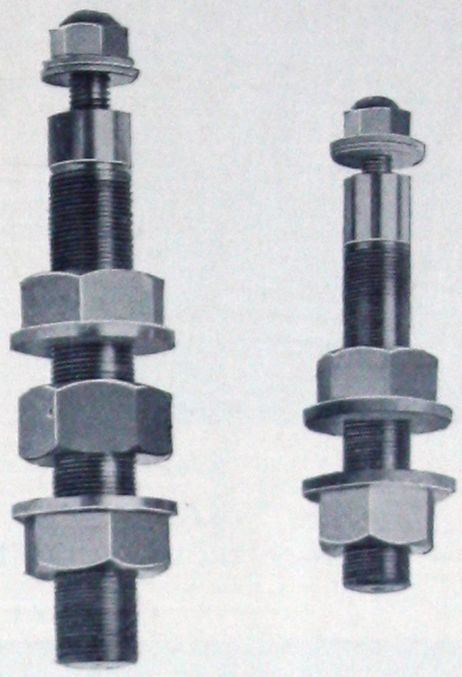
We have, at great expense, had special copper working machinery built and installed for this work, and are now supplying our customers with pure **Soft Drawn Copper Studs** of the highest conductivity, equipped with large properly proportioned red metal connecting nuts.

STANDARD AND EXTRA HEAVY

Back Connections for Switch-Board Work.



Pure Soft Drawn Copper Studs with Large Red Metal Nuts.



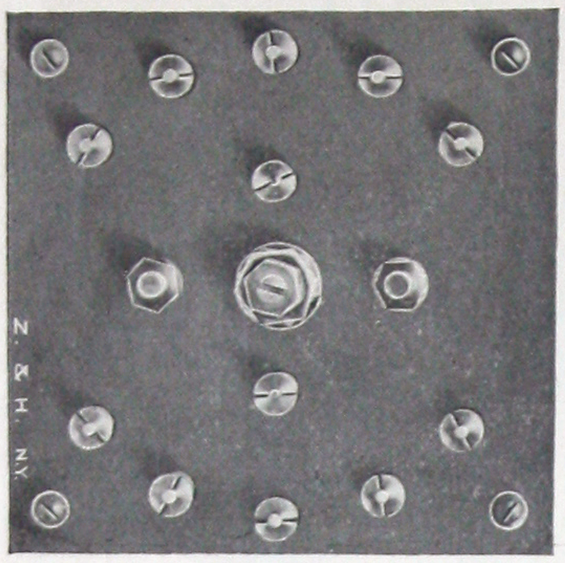
In the table below will be found prices of complete back connections for our switches. The "Standard" sizes have a low current density and are suitable for all first-class work. The "Extra Heavy" sizes have an extremely low current density.

Prices below include one Stud with Cap Nut, and two or more Connecting Nuts, according to size.

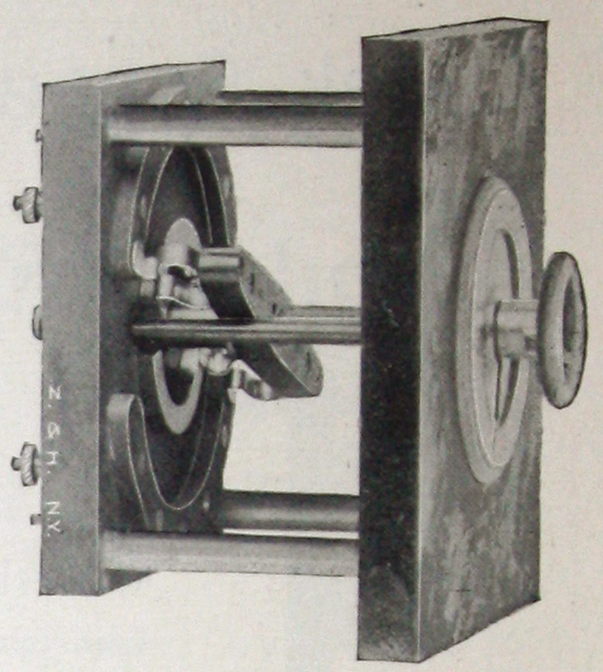
CAPACITY IN AMPERES.	STANDARD SIZES.		EXTRA HEAVY SIZES.	
	PRICE EACH. STUD EQUIPPED WITH NUTS.	CATALOGUE NUMBER.	PRICE EACH. STUD EQUIPPED WITH NUTS.	CATALOGUE NUMBER.
25	.30	SCS10	.32	SCH10
50 & 75	.36	SCS30	.47	SCH30
100 & 150	.50	SCS50	.72	SCH50
200	.75	SCS60	1.10	SCH60
300	1.15	SCS70	1.44	SCH70
400 & 500	1.50	SCS90	2.20	SCH90
600	2.30	SCS11	2.60	SCH11
800	2.70	SCS12	3.50	SCH12
1000	3.65	SCS13	4.66	SCH13
1250	4.80	SCS14	5.83	SCH14
1500	5.95	SCS15	7.75	SCH15
1750	7.90	SCS16	10.40	SCH16
2000	10.60	SCS17	15.45	SCH17

Back Connections, when ordered with Switches, will be sweated in without extra charge.

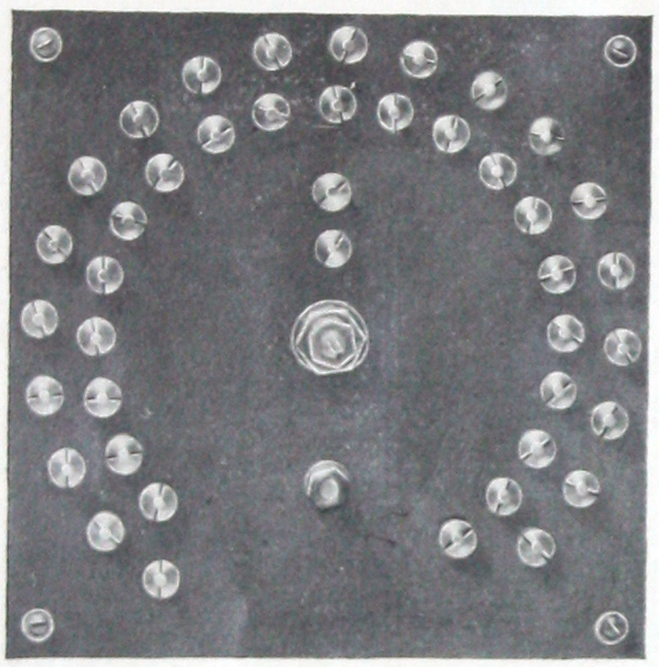
Voltmeter, Ground Detector and Differential Galvanometer Switches.



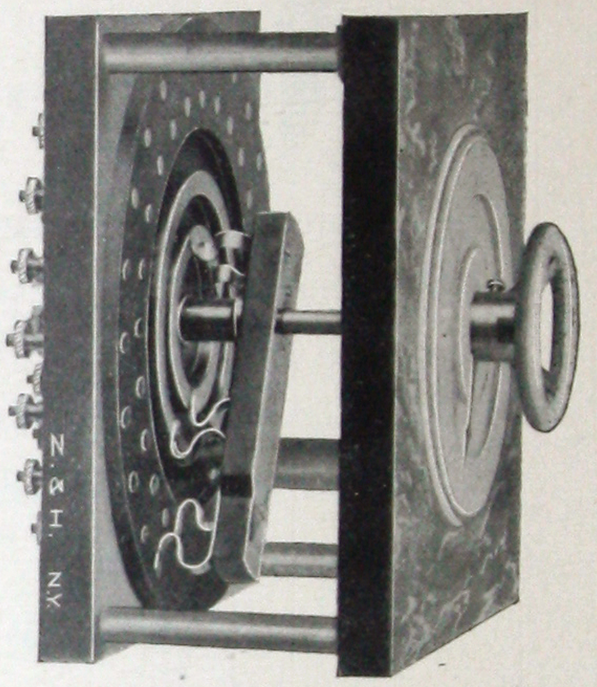




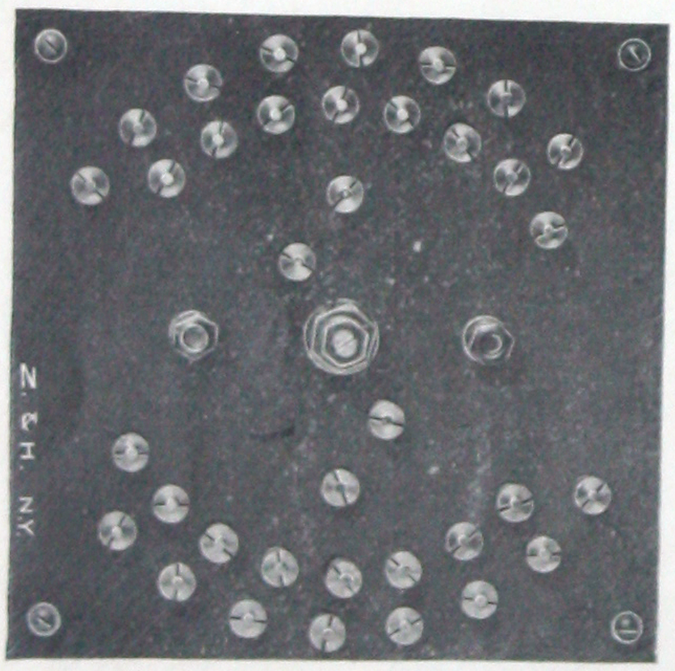
TYPE A—VOLTMETER AND GROUND DETECTOR SWITCH.



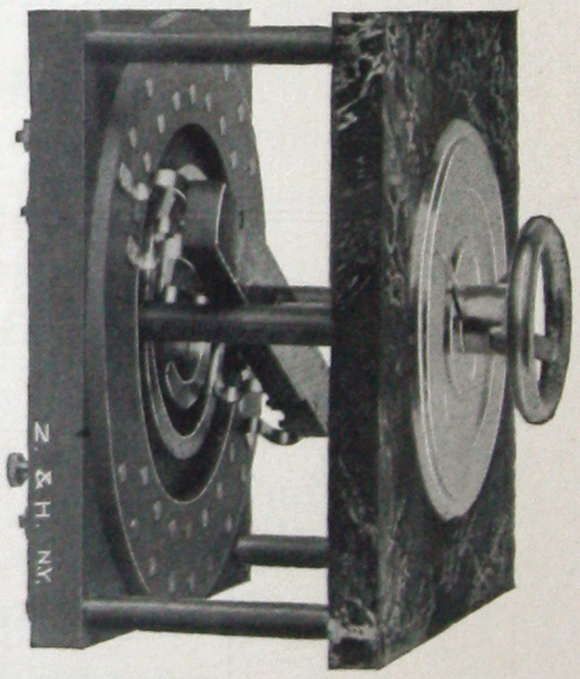




TYPE B—VOLTMETER AND GROUND DETECTOR SWITCH.







TYPE C—DIFFERENTIAL GALVANOMETER SWITCH.

ZIMDARS & HUNT, NEW YORK.

INSTRUMENT SWITCHES FOR VOLT METERS, GROUND DETECTORS, AND DIFFERENTIAL GALVANOMETERS.

The Instrument Switches illustrated on opposite page will be seen to embody many distinctive points of superiority. All contacts, connections, etc., are mounted on a separate slab of slate, which is located at the back of switchboard; from this a rod passes to the front of switchboard and has attached to it the operating handle, which carries an indicating pointer over a suitably lettered dial plate. The parts of these switches are all independently susceptible of the finest adjustment by nuts and screws especially provided for the purpose, before or after the switch is in place. The main points in the design are clearly shown in the illustrations, and need no further comment. Great attention has been given to details, and, in contrast to the majority of apparatus of this class, these switches do not require constant tinkering to keep them in operating condition after they are installed. They will be found to be strictly high grade in every particular.

PRICES OF TYPE A INSTRUMENT SWITCHES.

NUMBER OF CIRCUITS.	WITHOUT FUSE CONNECTIONS.		WITH FUSE CONNECTIONS.	
	PRICE.	CAT. NO.	PRICE.	CAT. NO.
3	21.00	IS3A	26.50	IS3AF
4	22.00	IS4A	28.00	IS4AF
5	23.00	IS5A	29.50	IS5AF
6	24.00	IS6A	31.00	IS6AF
7	25.00	IS7A	32.50	IS7AF
8	26.00	IS8A	34.00	IS8AF

PRICES OF HIGH RANGE INSTRUMENT SWITCHES, TYPE B.

NUMBER OF CIRCUITS.	WITHOUT FUSE CONNECTIONS.		WITH FUSE CONNECTIONS.	
	PRICE.	CAT. NO.	PRICE.	CAT. NO.
9	36.00	IS9B	45.00	IS9BF
10	37.50	IS10B	47.00	IS10BF
11	39.00	IS11B	49.00	IS11BF
12	40.50	IS12B	51.00	IS12BF
13	42.00	IS13B	53.00	IS13BF
14	43.50	IS14B	55.00	IS14BF
15	45.00	IS15B	57.00	IS15BF
16	46.50	IS16B	59.00	IS16BF
17	48.00	IS17B	61.00	IS17BF
18	49.50	IS18B	63.00	IS18BF
19	51.00	IS19B	65.00	IS19BF
20	52.50	IS20B	67.00	IS20BF

PRICES OF TYPE C INSTRUMENT SWITCHES—FOR DIFFERENTIAL GALVANOMETERS.

In this Switch two circuits are closed at the same time. It is used for closing the two circuits of a Differential Galvanometer in plants containing two or more dynamos.

NO. OF PAIRS OF CIRCUITS.	WITHOUT FUSE CONNECTIONS.		WITH FUSE CONNECTIONS.	
	PRICE.	CAT. NO.	PRICE.	CAT. NO.
2	29.00	IS2C	36.00	IS2CF
3	32.50	IS3C	40.50	IS3CF
4	36.00	IS4C	45.00	IS4CF
5	39.50	IS5C	49.50	IS5CF
6	43.00	IS6C	54.00	IS6CF
7	46.50	IS7C	58.50	IS7CF
8	50.00	IS8C	63.00	IS8CF

In Ordering, always give Necessary Data for Lettering Dial and Thickness of Switchboard.
Handle and Dial Plates are Polished Red Metal; for Copper or Nickel Finish add $1.00 net to above prices.

SWITCHBOARDS.

OUR SWITCHBOARDS NEED NO INTRODUCTION. MANY OF THE FINEST IN THE COUNTRY HAVE BEEN DESIGNED AND BUILT BY US.

Facilities.

With unexcelled facilities at our disposal we are in a position to turn out with promptness the largest and finest classes of this work.

Equipment.

We have always endeavored to maintain our factory equipment at the highest point of perfection, and with this end in view have lately added to our already well equipped plant much new and improved high grade machinery, some of which has been especially built for us by the best makers.

Designing.

Realizing that in order that a plant may be handled to the best advantage too much care cannot be expended on the proper design of the switchboard, we have long made it a point to employ in our designing department none but the most skillful designers obtainable—those who from training and experience are especially fitted for the work.

Labor.

Our switchboards and their equipments are made by skilled mechanics who have had long experience in their line and on whose work absolute reliance can be placed. This, together with the fact that all work down to the smallest detail is subjected to a most rigid inspection, both while building and after completion, guarantees to the purchaser absolute immunity from the many imperfections that frequently develop after a switchboard has been installed.

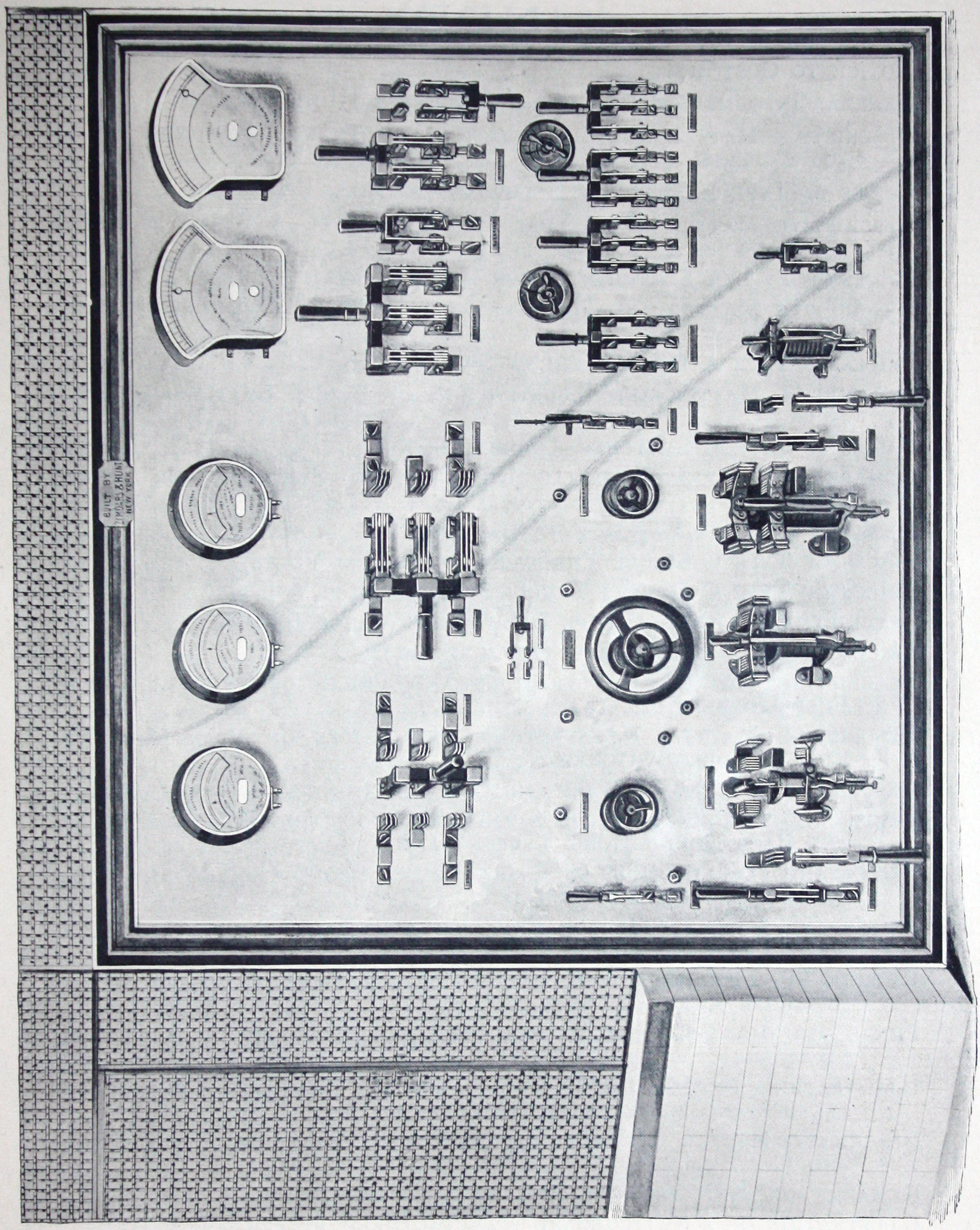
Material.

None but the best grades of material are used. Our slate and marble comes from the most reliable quarries and is guaranteed to be free from all metal or other impurities, and the finish given it is of the best. Boards can be supplied in any of the domestic marbles or slates, or in the more expensive foreign or fancy marbles.

Full technical data concerning our switchboards will be furnished to engineers upon request.

We guarantee to accurately fill the most exacting specifications.

We make switchboards of all kinds and classes for all purposes, and estimates will be furnished promptly on them upon receipt of necessary data.



MANUFACTURED BY ZIMDARS & HUNT.

ZIMDARS & HUNT, NEW YORK.

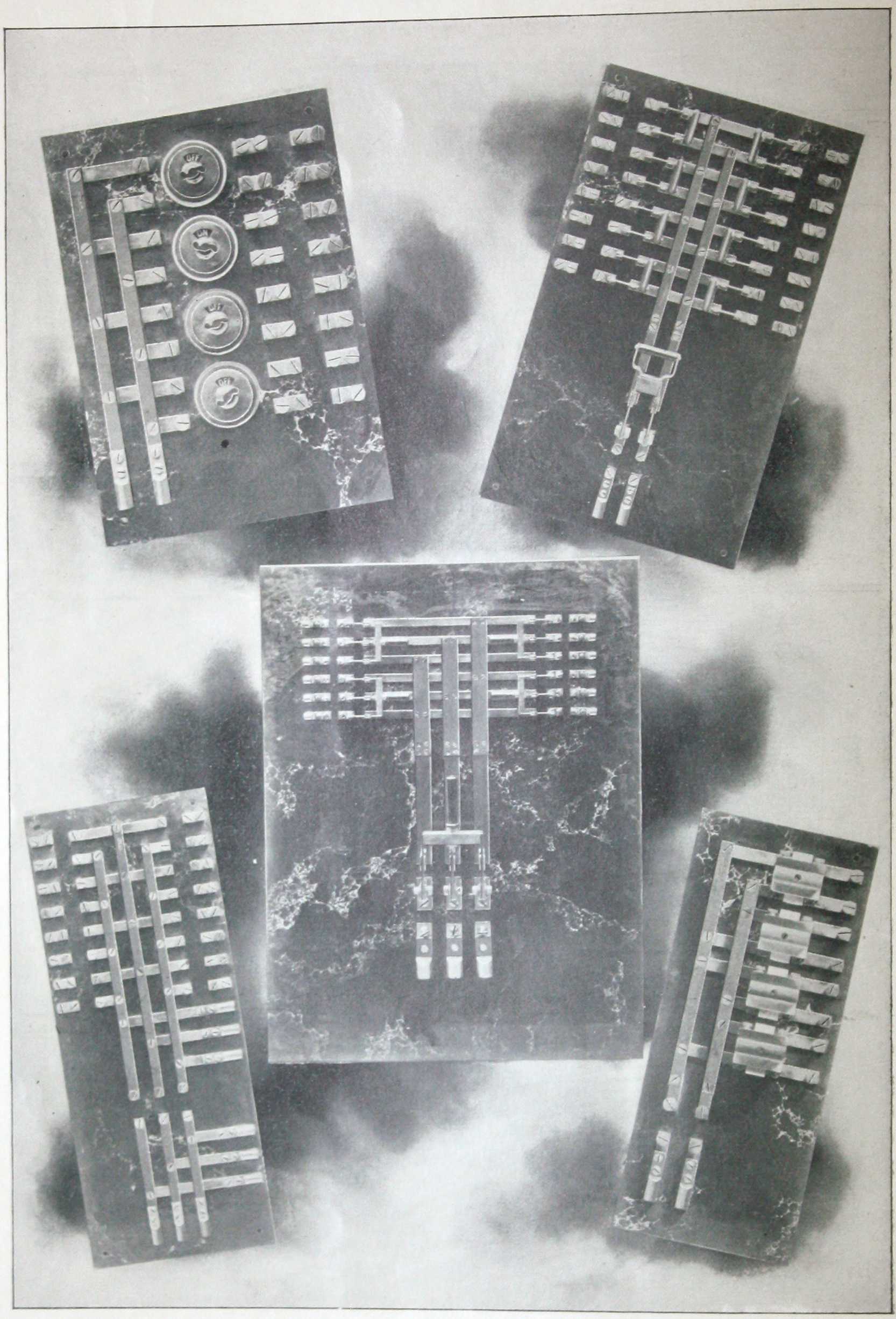
INDEX.

NOTICE TO CUSTOMERS 3
GENERAL INFORMATION REGARDING ZIMDARS & HUNT SWITCHES 5
DESCRIPTIVE MATTER AND ILLUSTRATIONS OF TYPE A SWITCHES BELOW 500 AMPERES 6
PRICES OF TYPE A SWITCHES BELOW 500 AMPERES 7
DESCRIPTIVE MATTER AND ILLUSTRATIONS OF TYPE A SWITCHES ABOVE 400 AMPERES 8
PRICES OF TYPE A SWITCHES ABOVE 400 AMPERES 9
DESCRIPTIVE MATTER AND ILLUSTRATIONS OF TYPE A DOUBLE THROW SWITCHES 10
PRICES OF TYPE A DOUBLE THROW SWITCHES 11
DESCRIPTIVE MATTER AND ILLUSTRATIONS OF TYPE B SWITCHES (DOUBLE BREAK) 12
PRICES OF TYPE B SWITCHES (DOUBLE BREAK) 13
REMARKS CONCERNING SPECIAL SWITCHES AND SWITCHES FOR HEAVY CURRENTS 14
REMARKS CONCERNING 500 VOLT SWITCHES 15
PRICES OF TYPE C SINGLE THROW SWITCHES (500 VOLTS) 16
PRICES OF TYPE C DOUBLE THROW SWITCHES (500 VOLTS) 17
DESCRIPTIVE MATTER OF TYPE D SWITCHES (QUICK BREAK) 18
PRICES OF TYPE D SWITCHES (QUICK BREAK) 19
DESCRIPTIVE MATTER, ILLUSTRATIONS AND PRICES OF TYPES A AND B FUSE HOLDERS 20
DESCRIPTIVE MATTER, ILLUSTRATIONS AND PRICES OF TYPES A AND B FUSE HOLDER SWITCHES 21
DESCRIPTIVE MATTER OF WIRE AND CABLE TERMINALS OR LUGS 22
PRICES AND ILLUSTRATIONS OF STANDARD CONNECTING LUGS, FOR FRONT AND BACK CONNECTIONS, TYPES A AND C 23
PRICES AND ILLUSTRATIONS OF EXTRA HEAVY FRONT CONNECTION LUGS, TYPES AH, AH2, BH AND BH2 24
PRICES AND ILLUSTRATIONS OF EXTRA HEAVY BACK CONNECTION LUGS, TYPES CH, CH2, DH AND DH2 25
REMARKS CONCERNING STUDS AND NUTS FOR BACK CONNECTIONS TO SWITCHES 26
PRICES AND ILLUSTRATIONS OF STANDARD AND EXTRA HEAVY BACK CONNECTIONS 27
ILLUSTRATIONS OF INSTRUMENT SWITCHES FOR VOLTMETERS, GROUND DETECTORS AND DIFFERENTIAL GALVANOMETERS 28
DESCRIPTIVE MATTER AND PRICES OF INSTRUMENT SWITCHES, TYPES A, B AND C 29
REMARKS ON SWITCHBOARDS AND SWITCHBOARD MANUFACTURING 30
ILLUSTRATION OF A SWITCHBOARD MANUFACTURED BY ZIMDARS & HUNT 31

SECTION B.

PANEL BOARDS,

FEEDER BOARDS, ETC.



ZIMDARS & HUNT, NEW YORK.

Our Panel Boards ...and Slate Cutouts.

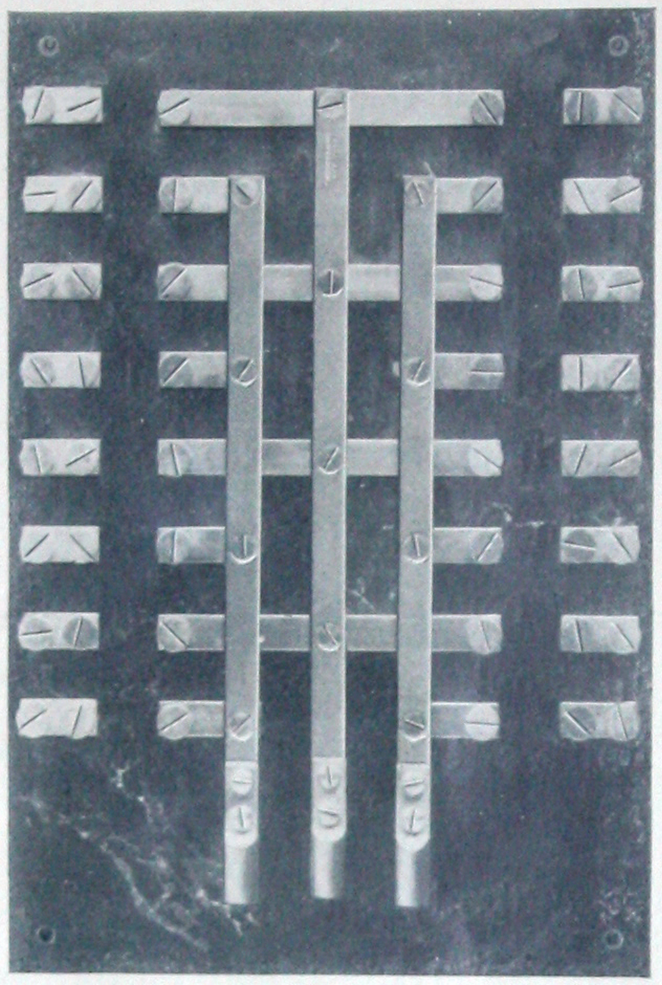
THAT THE SYSTEM of bringing all circuits to Panel Boards located at definite distributing points is a great advance over the old method of installing individual cutouts, isolated or grouped, cannot be denied, and no one would now think of making a first-class installation in any other manner. But the advantage of using some of the early types of Panel Boards, which were constructed in the flimsiest manner imaginable from materials totally unfit for the purpose, is not so obvious. In fact, were some of these early types compared with an equivalent cutout group they would doubtless suffer by the comparison. Yet many of the Panel Boards offered to-day differ in no material respects from these primitive types and show no improvement over them whatever.

The Panel Boards of our manufacture embody the results of an extended experience in this line and they are now the recognized standards for all first-class work. Each type has been carefully designed with express reference to the service it has to perform. Spaces, sectional areas, contact surfaces, etc., have all been given special attention and the constants in use by us have met with the approval of the leading Engineers and Contractors. Pure Lake Copper is the only metal employed for Bus and Branch Bars and for connections, the sections being such as to allow of the current being carried at a low density. The slate and marble used is selected from the most reliable quarries and is guaranteed free from metal or other impurities. Trimmings are of the finest, copper and rich red metal being employed exclusively. The workmanship is all that could be desired, our well known standard being uniformly maintained. We can confidently say, as with our switches, that these articles are as near perfection as it is possible to make them. A credit to any installation, they never fail to show off to advantage wherever placed.

STANDARD PANEL BOARDS.

TYPES A AND AA.

BRANCH CIRCUITS ARRANGED FOR FUSES.



TYPE A.

BRANCH CIRCUITS ARRANGED ON BOTH SIDES OF MAINS.

2 OR 3-WIRE MAINS.

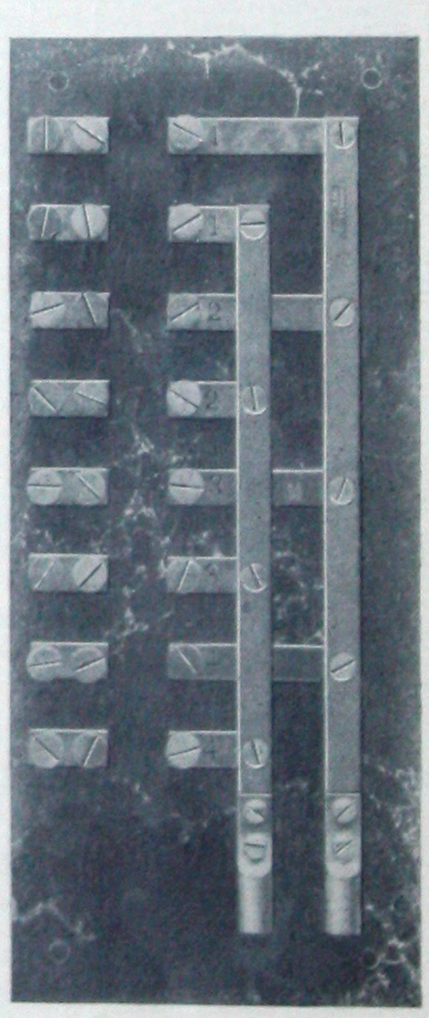
2 OR 3-WIRE BRANCHES.

TYPE AA.

BRANCH CIRCUITS ARRANGED ON ONE SIDE OF MAINS ONLY.

2 OR 3-WIRE MAINS.

2 OR 3-WIRE BRANCHES.



ZIMDARS & HUNT, NEW YORK.

Standard Panel Boards.--Types A and AA.

CURRENT CARRYING PARTS PURE LAKE COPPER OF HIGHEST CONDUCTIVITY.

Can be used on Circuits up to 300 Volts.

PRICES OF TYPE A PANEL BOARDS

With 2-Wire Branches ; for 3-Wire Branches, take price of equivalent in 2-Wire.

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	Panel Board.		Slate Box and Door Lining.		Panel Board.		Slate Box and Door Lining.		Length.	Width 2-W. Mains.	Width 3-W. Mains.	Depth of Slate Box
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.				
2	5.00	PB 22A	1.50	PX 22A	5.75	PB 23A	1.65	PX 23A	6½	8½	9½	3
4	7.00	PB 42A	1.85	PX 42A	8.00	PB 43A	2.00	PX 43A	9	8½	9½	3
6	9.00	PB 62A	2.20	PX 62A	10.25	PB 63A	2.40	PX 63A	11½	8½	9½	3
8	11.00	PB 82A	2.55	PX 82A	12.50	PB 83A	2.75	PX 83A	14	8½	9½	3
10	13.00	PB102A	2.90	PX102A	14.75	PB103A	3.15	PX103A	16½	8½	9½	3
12	15.00	PB122A	3.25	PX122A	17.00	PB123A	3.50	PX123A	19	8½	9½	3
14	17.00	PB142A	3.60	PX142A	19.25	PB143A	3.90	PX143A	21½	8½	9½	3
16	19.00	PB162A	3.95	PX162A	21.50	PB163A	4.25	PX163A	24	8½	9½	3
18	21.00	PB182A	4.30	PX182A	23.75	PB183A	4.65	PX183A	26½	8½	9½	3
20	23.00	PB202A	4.65	PX202A	26.00	PB203A	5.00	PX203A	29	8½	9½	3

Above prices are for Polished Finish ; for prices of Plain Finish, deduct 10% from above prices. Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains ; for prices of these and other extras, see pages 46 and 47.

PRICES OF TYPE AA PANEL BOARDS

With 2-Wire Branches ; for 3-Wire Branches, take price of equivalent in 2-Wire.

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	Panel Board.		Slate Box and Door Lining.		Panel Board.		Slate Box and Door Lining.		Length.	Width 2-W. Mains.	Width 3-W. Mains.	Depth of Slate Box
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.				
2	5.50	PB 22AA	1.50	PX 22AA	6.50	PB 23AA	1.65	PX 23AA	9	6	7	3
3	7.00	PB 32AA	1.80	PX 32AA	8.25	PB 33AA	2.00	PX 33AA	11½	6	7	3
4	8.50	PB 42AA	2.10	PX 42AA	10.00	PB 43AA	2.30	PX 43AA	14	6	7	3
5	10.00	PB 52AA	2.40	PX 52AA	11.75	PB 53AA	2.65	PX 53AA	16½	6	7	3
6	11.50	PB 62AA	2.70	PX 62AA	13.50	PB 63AA	2.95	PX 63AA	19	6	7	3
7	13.00	PB 72AA	3.00	PX 72AA	15.25	PB 73AA	3.30	PX 73AA	21½	6	7	3
8	14.50	PB 82AA	3.30	PX 82AA	17.00	PB 83AA	3.60	PX 83AA	24	6	7	3
9	16.00	PB 92AA	3.60	PX 92AA	18.75	PB 93AA	3.95	PX 93AA	26½	6	7	3
10	17.50	PB102AA	3.90	PX102AA	20.50	PB103AA	4.25	PX103AA	29	6	7	3

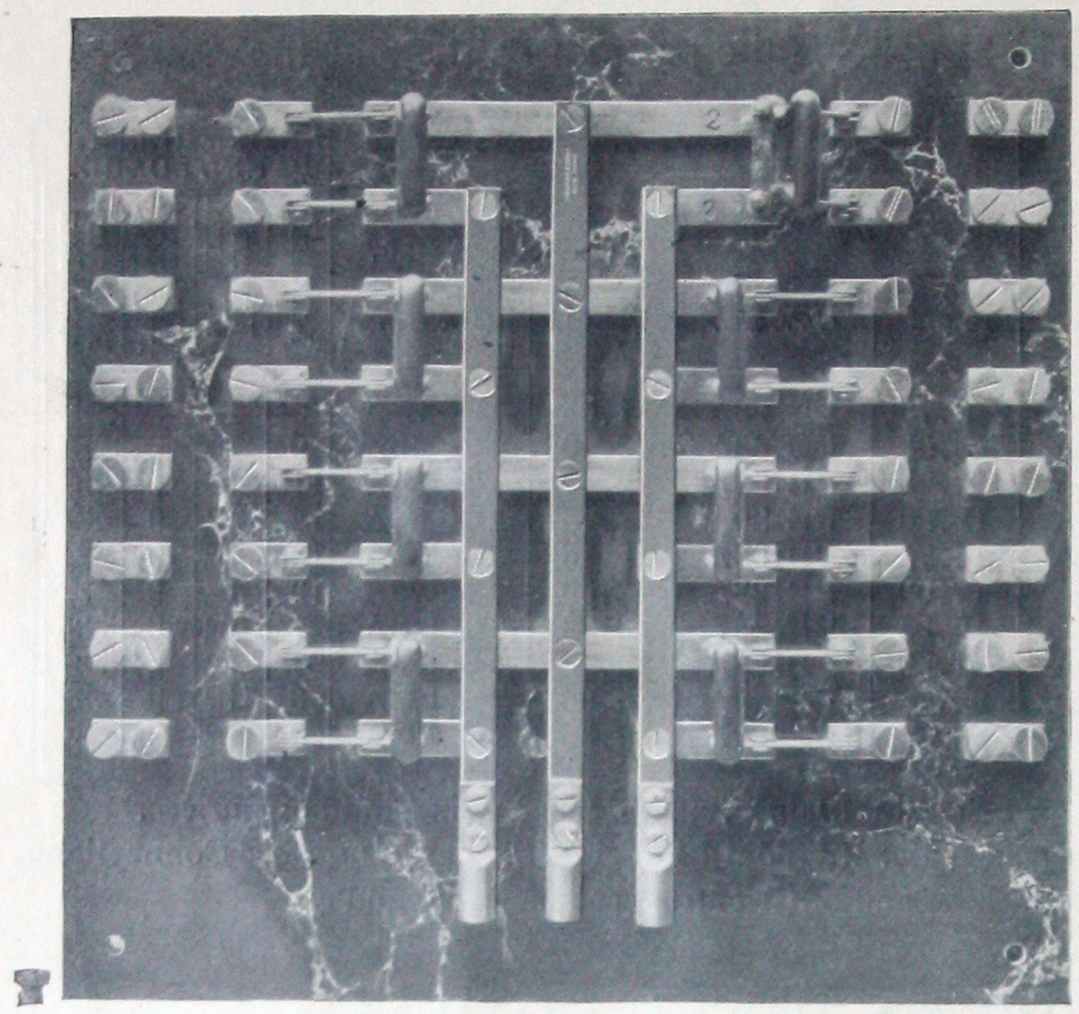
Above prices are for Polished Finish ; for prices of Plain Finish, deduct 10% from above prices. Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains ; for prices of these and other extras, see pages 46 and 47.

Panel Boards will be Mounted on any of the Foreign or Domestic Marbles at an extra charge when desired.

Standard Panel Boards.

Types B and BB.

BRANCH CIRCUITS ARRANGED WITH 15 AMP. "ALL COPPER" KNIFE SWITCHES AND FUSE CONNECTIONS.



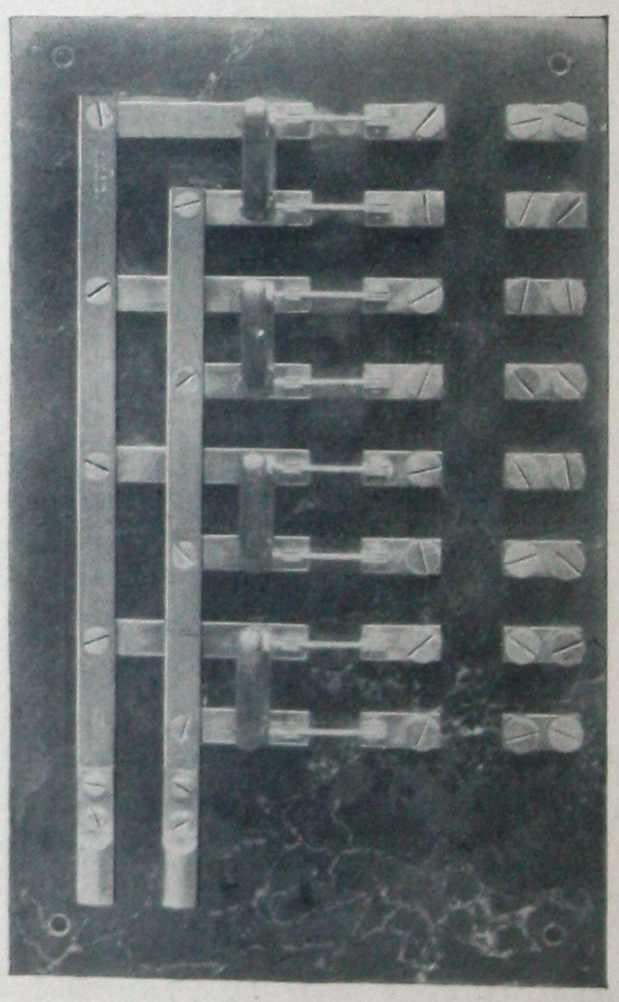
Type B.

Branch Circuits arranged on Both Sides of Mains

*

2 or 3-Wire Mains.

2 or 3-Wire Branches.



Type BB.

Branch Circuits arranged on One Side of Mains only.

*

2 or 3-Wire Mains.

2 or 3-Wire Branches.

Standard ✦ Panel ✦ Boards,

TYPES B AND BB.

CURRENT CARRYING PARTS PURE LAKE COPPER OF HIGHEST CONDUCTIVITY.

Can be used on Circuits up to 300 Volts.

PRICES OF TYPE B PANEL BOARDS

With 2-Wire Branches; for 3-Wire Branches, take price of 2-Wire Branch Panel of twice the number of Circuits.

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	PANEL BOARD.		SLATE BOX AND DOOR LINING.		PANEL BOARD.		SLATE BOX AND DOOR LINING.		LENGTH.	WIDTH. 2-W. MAINS	WIDTH. 3-W. MAINS	DEPTH OF SLATE BOX.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	8.00	PB 22B	2.50	PX 22B	8.75	PB 23B	2.65	PX 23B	6½	13½	14½	3½
4	12.25	PB 42B	2.95	PX 42B	13.25	PB 43B	3.10	PX 43B	9	13½	14½	3½
6	16.50	PB 62B	3.40	PX 62B	17.75	PB 63B	3.60	PX 63B	11½	13½	14½	3½
8	20.75	PB 82B	3.85	PX 82B	22.25	PB 83B	4.05	PX 83B	14	13½	14½	3½
10	25.00	PB102B	4.30	PX102B	26.75	PB103B	4.55	PX103B	16½	13½	14½	3½
12	29.25	PB122B	4.75	PX122B	31.25	PB123B	5.00	PX123B	19	13½	14½	3½
14	33.50	PB142B	5.20	PX142B	35.75	PB143B	5.50	PX143B	21½	13½	14½	3½
16	37.75	PB162B	5.65	PX162B	40.25	PB163B	5.95	PX163B	24	13½	14½	3½
18	42.00	PB182B	6.10	PX182B	44.75	PB183B	6.45	PX183B	26½	13½	14½	3½
20	46.25	PB202B	6.55	PX202B	49.25	PB203B	6.90	PX203B	29	13½	14½	3½

Above prices are for Polished Finish; for prices of Plain Finish, deduct 10% from above prices.
Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains; for prices of these and other extras, see pages 46 and 47.

PRICES OF TYPE BB PANEL BOARDS

With 2-Wire Branches; for 3-Wire Branches, take price of 2-Wire Branch Panel of twice the number of Circuits.

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	PANEL BOARD.		SLATE BOX AND DOOR LINING.		PANEL BOARD.		SLATE BOX AND DOOR LINING.		LENGTH.	WIDTH. 2-W. MAINS	WIDTH. 3-W. MAINS	DEPTH OF SLATE BOX.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	8.50	PB 22BB	2.00	PX 22BB	9.50	PB 23BB	2.15	PX 23BB	9	8½	9½	3½
3	11.25	PB 32BB	2.40	PX 32BB	12.50	PB 33BB	2.60	PX 33BB	11½	8½	9½	3½
4	14.00	PB 42BB	2.80	PX 42BB	15.50	PB 43BB	3.00	PX 43BB	14	8½	9½	3½
5	16.75	PB 52BB	3.20	PX 52BB	18.50	PB 53BB	3.45	PX 53BB	16½	8½	9½	3½
6	19.50	PB 62BB	3.60	PX 62BB	21.50	PB 63BB	3.85	PX 63BB	19	8½	9½	3½
7	22.25	PB 72BB	4.00	PX 72BB	24.50	PB 73BB	4.30	PX 73BB	21½	8½	9½	3½
8	25.00	PB 82BB	4.40	PX 82BB	27.50	PB 83BB	4.70	PX 83BB	24	8½	9½	3½
9	27.75	PB 92BB	4.80	PX 92BB	30.50	PB 93BB	5.15	PX 93BB	26½	8½	9½	3½
10	30.50	PB102BB	5.20	PX102BB	33.50	PB103BB	5.55	PX103BB	29	8½	9½	3½

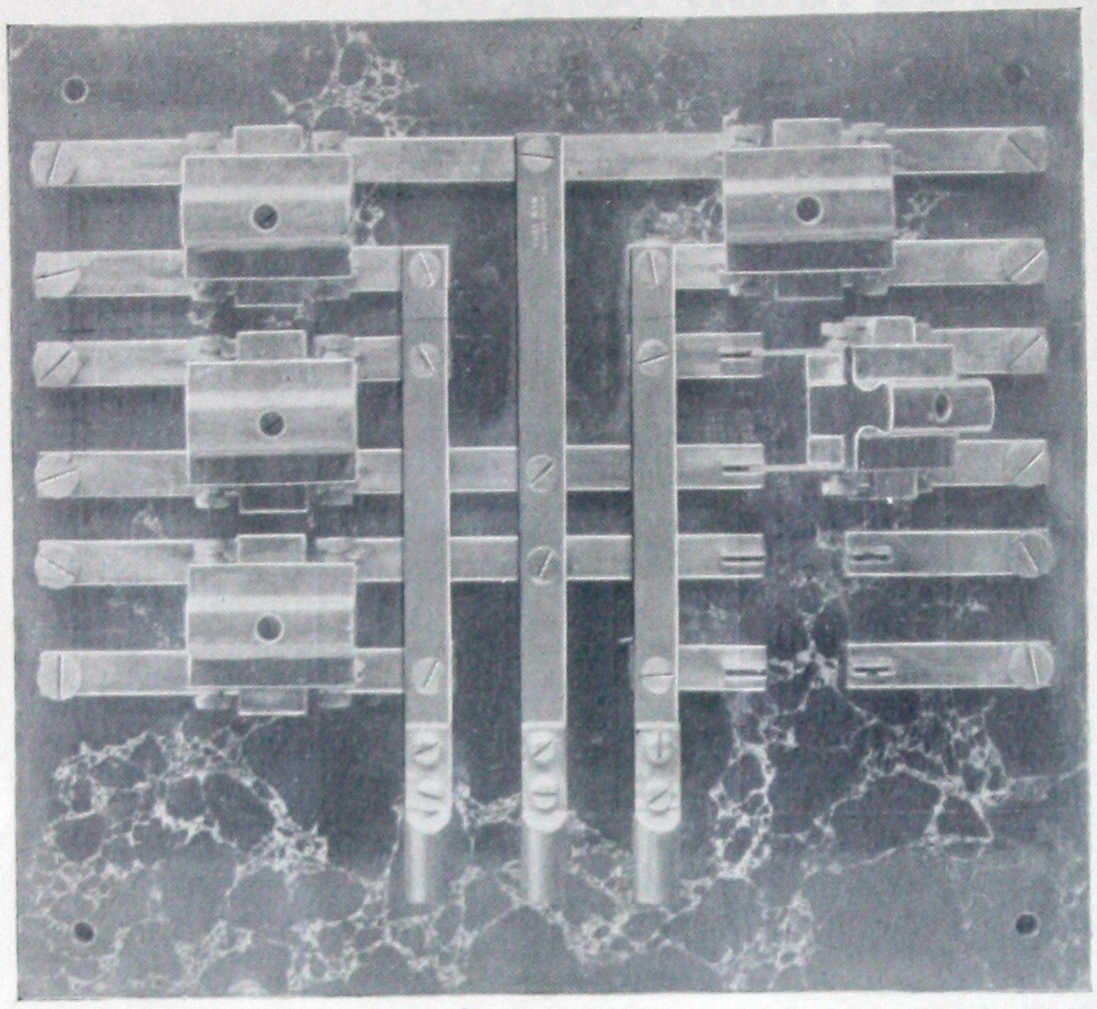
Above prices are for Polished Finish; for prices of Plain Finish, deduct 10% from above prices.
Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains; for prices of these and other extras, see pages 46 and 47.

Panel Boards will be mounted on any of the Foreign or Domestic Marbles at an extra charge when desired.

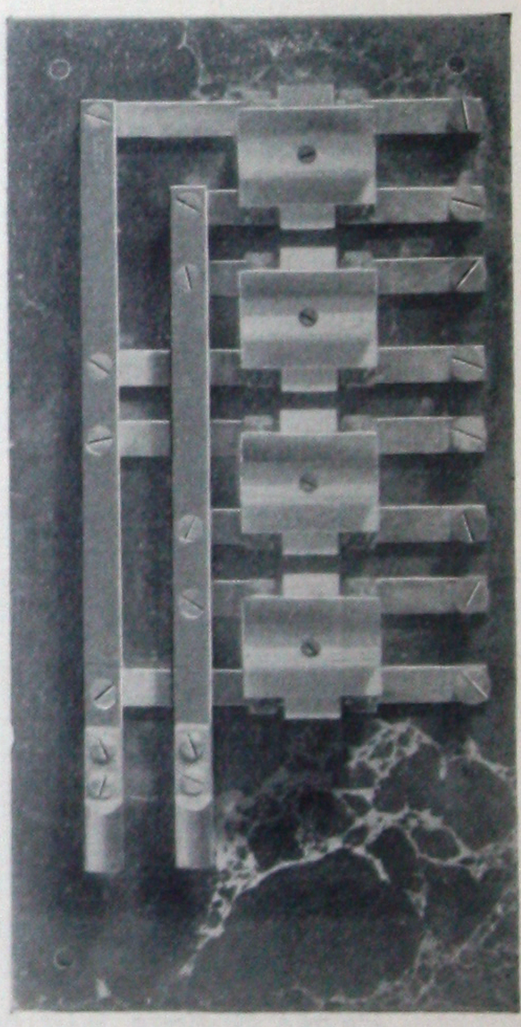
STANDARD PANEL BOARDS.

Types C and CC.

BRANCH CIRCUITS ARRANGED WITH REMOVABLE FUSE HOLDERS.







TYPE C.

Branch Circuits Arranged on Both Sides of Mains.

2 or 3-WIRE MAINS.
2-WIRE BRANCHES ONLY

TYPE CC.

Branch Circuits Arranged on One Side of Mains.

2 or 3-WIRE MAINS.
2-WIRE BRANCHES ONLY.

Standard Panel Boards,--Types C and CC.

CURRENT CARRYING PARTS PURE LAKE COPPER OF HIGHEST CONDUCTIVITY.

Can be used on Circuits up to 300 Volts.

REMOVABLE FUSE HOLDERS FURNISHED IN WHITE OR STAINED PORCELAIN AS DESIRED.

PRICES OF TYPE C PANEL BOARDS

With 2-Wire Branches; this type is not made with 3-Wire Branches.

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	Panel Board.		Slate Box and Door Lining.		Panel Board		Slate Box and Door Lining.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length.	Width 2-W. Mains	Width 3-W. Mains	Depth of Slate Box
2	8.75	PB 22C	2.10	PX 22C	9.50	PB 23C	2.25	PX 23C	6½	11	12	3½
4	13.75	PB 42C	2.50	PX 42C	14.75	PB 43C	2.65	PX 43C	8¾	11	12	3½
6	18.75	PB 62C	2.90	PX 62C	20.00	PB 63C	3.10	PX 63C	11	11	12	3½
8	23.75	PB 82C	3.30	PX 82C	25.25	PB 83C	3.50	PX 83C	13¼	11	12	3½
10	28.75	PB102C	3.70	PX102C	30.50	PB103C	3.95	PX103C	15½	11	12	3½
12	33.75	PB122C	4.10	PX122C	35.75	PB123C	4.35	PX123C	17¾	11	12	3½
14	38.75	PB142C	4.50	PX142C	41.00	PB143C	4.80	PX143C	20	11	12	3½
16	43.75	PB162C	4.90	PX162C	46.25	PB163C	5.20	PX163C	22¼	11	12	3½
18	48.75	PB182C	5.30	PX182C	51.50	PB183C	5.65	PX183C	24½	11	12	3½
20	53.75	PB202C	5.70	PX202C	56.75	PB203C	6.05	PX203C	26¾	11	12	3½

Above prices are for Polished Finish; for prices on Plain Finish, deduct 10% from above prices. Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains; for prices of these and other extras, see pages 46 and 47.

PRICES OF TYPE CC PANEL BOARDS

With 2-Wire Branches; this type is not made with 3-Wire Branches.

NUMBER OF CIRCUITS.	2-WIRE MAINS				3 WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	Panel Board.		Slate Box and Door Lining.		Panel Board.		Slate Box and Door Lining.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length.	Width 2-W. Mains	Width 3-W. Mains	Depth of Slate Box
2	9.25	PB 22CC	1.90	PX 22CC	10.25	PB 23CC	2.05	PX 23CC	8¾	7	8	3½
3	12.25	PB 32CC	2.20	PX 32CC	13.50	PB 33CC	2.40	PX 33CC	11	7	8	3½
4	15.25	PB 42CC	2.50	PX 42CC	16.75	PB 43CC	2.70	PX 43CC	13¼	7	8	3½
5	18.25	PB 52CC	2.80	PX 52CC	20.00	PB 53CC	3.05	PX 53CC	15½	7	8	3½
6	21.25	PB 62CC	3.10	PX 62CC	23.25	PB 63CC	3.35	PX 63CC	17¾	7	8	3½
7	24.25	PB 72CC	3.40	PX 72CC	26.50	PB 73CC	3.70	PX 73CC	20	7	8	3½
8	27.25	PB 82CC	3.70	PX 82CC	29.75	PB 83CC	4.00	PX 83CC	22¼	7	8	3½
9	30.25	PB 92CC	4.00	PX 92CC	33.00	PB 93CC	4.35	PX 93CC	24½	7	8	3½
10	33.25	PB102CC	4.30	PX102CC	36.25	PB103CC	4.65	PX103CC	26¾	7	8	3½

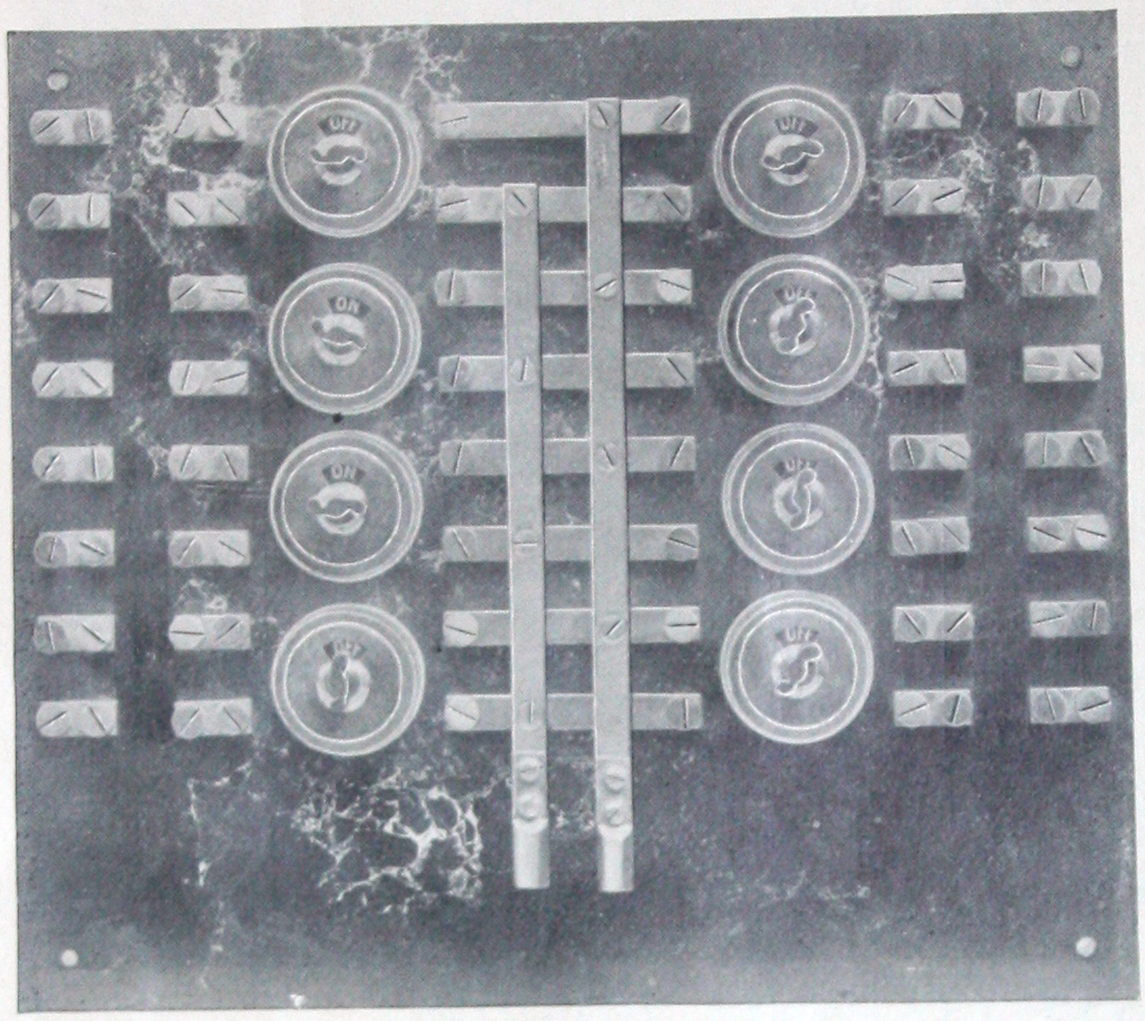
Above prices are for Polished Finish; for prices of Plain Finish, deduct 10% from above prices. Polished Panel Boards are mounted on Marbleized Slate. Standard Panel Boards have no Fuse Connections or Switch in Mains; for prices of these and other extras, see pages 46 and 47.

Panel Boards will be Mounted on any of the Foreign or Domestic Marbles when desired.

STANDARD PANEL BOARDS.

TYPES D AND DD.

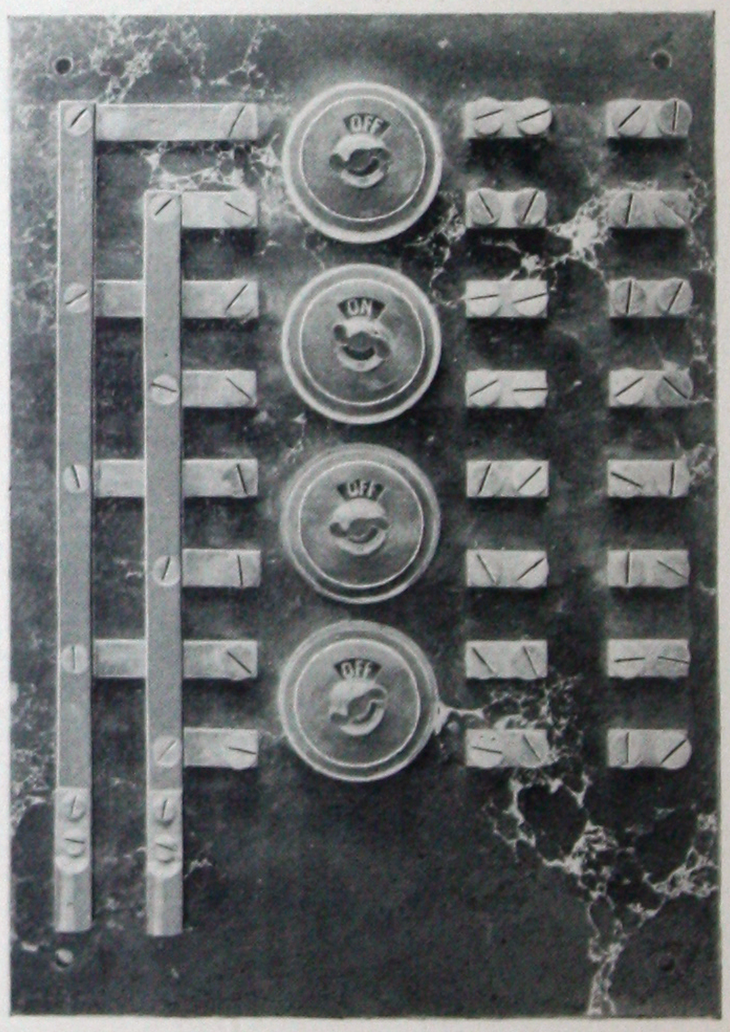
BRANCH CIRCUITS ARRANGED WITH 10 AMP., D. P., SNAP SWITCHES AND FUSE CONNECTIONS.



...TYPE D...

Branch Circuits arranged on both sides of Mains.

2 or 3-WIRE MAINS.
2-WIRE BRANCHES ONLY.



...TYPE DD...

Branch Circuits arranged on one side of Mains.

2 or 3-WIRE MAINS.
2-WIRE BRANCHES ONLY.

STANDARD PANEL BOARDS.

TYPES D AND DD.

Current-Carrying Parts Pure Lake Copper of Highest Conductivity.

PRICES OF TYPE D PANEL BOARDS,

WITH 2-WIRE BRANCHES. **This Type is not made with 3-Wire Branches.**

NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	PANEL BOARD.		SLATE BOX AND DOOR LINING.		PANEL BOARD.		SLATE BOX AND DOOR LINING.		LENGTH.	WIDTH. 2-W. MAINS.	WIDTH 3-W. MAINS.	DEPTH OF SLATE BOX.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	10.00	PB 22D	3.00	PX 22D	10.75	PB 23D	3.15	PX 23D	6½	16½	17½	3½
4	17.00	PB 42D	3.50	PX 42D	18.00	PB 43D	3.65	PX 43D	9	16½	17½	3½
6	24.00	PB 62D	4.00	PX 62D	25.25	PB 63D	4.20	PX 63D	11½	16½	17½	3½
8	31.00	PB 82D	4.50	PX 82D	32.50	PB 83D	4.70	PX 83D	14	16½	17½	3½
10	38.00	PB102D	5.00	PX102D	39.75	PB103D	5.25	PX103D	16½	16½	17½	3½
12	45.00	PB122D	5.50	PX122D	47.00	PB123D	5.75	PX123D	19	16½	17¾	3½
14	52.00	PB142D	6.00	PX142D	54.25	PB143D	6.30	PX143D	21½	16½	17½	3½
16	59.00	PB162D	6.50	PX162D	61.50	PB163D	6.80	PX163D	24	16½	17½	3½
18	66.00	PB182D	7.00	PX182D	68.75	PB183D	7.30	PX183D	26½	16½	17½	3½
20	73.00	PB202D	7.50	PX202D	76.00	PB203D	7.85	PX203D	29	16½	17½	3½

Above prices are for polished finish; for prices of plain finish deduct 10 per cent. from above prices.
Polished panel boards are mounted on marbleized slate.
Standard Panel Boards have no fuse connections or switch in mains; for prices of these and other extras see pages 46 and 47.

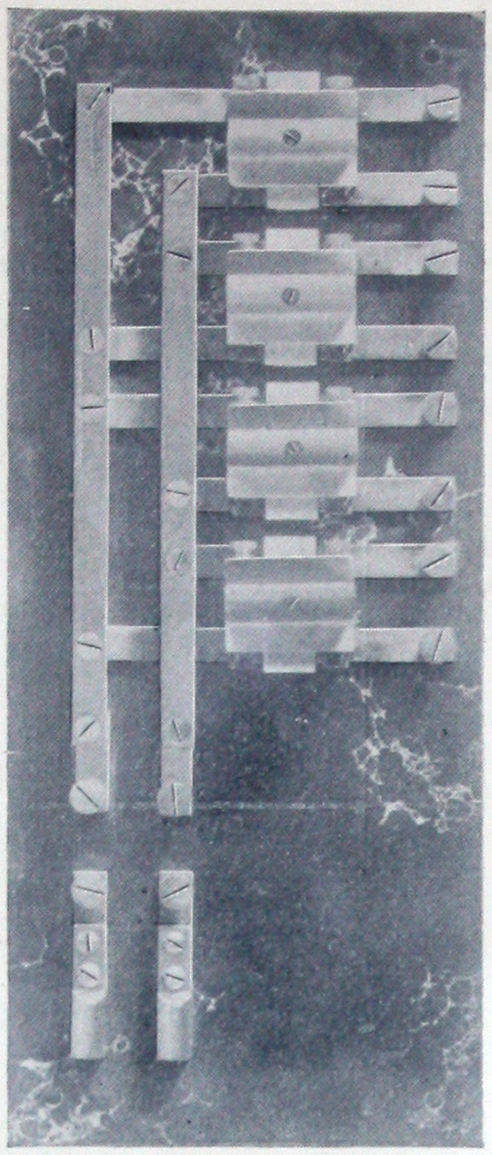
PRICES OF TYPE DD PANEL BOARDS,

WITH 2-WIRE BRANCHES. **This Type is not made with 3-Wire Branches.**

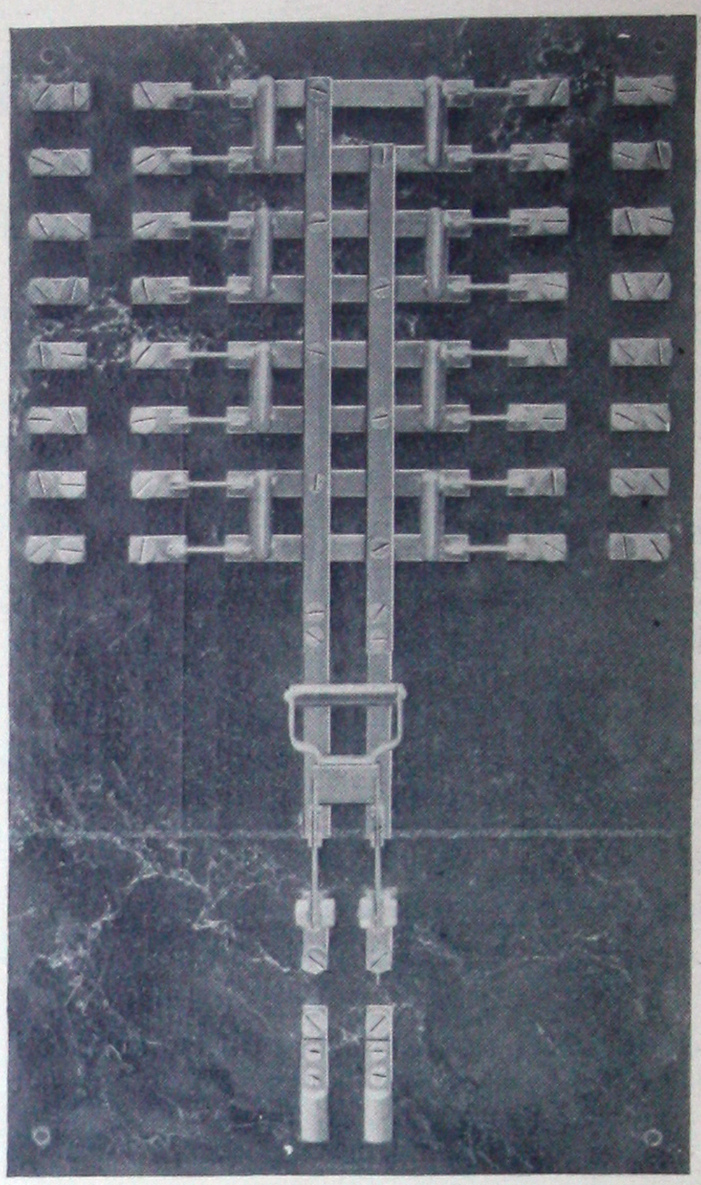
NUMBER OF CIRCUITS.	2-WIRE MAINS.				3-WIRE MAINS.				DIMENSIONS OF PANEL BOARD.			
	PANEL BOARD.		SLATE BOX AND DOOR LINING.		PANEL BOARD.		SLATE BOX AND DOOR LINING.		LENGTH.	WIDTH 2-W. MAINS	WIDTH 3-W. MAINS.	DEPTH OF SLATE BOX.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	10.50	PB 22DD	2.40	PX 22DD	11.50	PB 23DD	2.55	PX 23DD	9	10	11	3½
3	14.50	PB 32DD	2.80	PX 32DD	15.75	PB 33DD	3.00	PX 33DD	11½	10	11	3½
4	18.50	PB 42DD	3.20	PX 42DD	20.00	PB 43DD	3.40	PX 43DD	14	10	11	3½
5	22.50	PB 52DD	3.60	PX 52DD	24.25	PB 53DD	3.85	PX 53DD	16½	10	11	3½
6	26.50	PB 62DD	4.00	PX 62DD	28.50	PB 63DD	4.25	PX 63DD	19	10	11	3½
7	30.50	PB 72DD	4.40	PX 72DD	32.75	PB 73DD	4.70	PX 73DD	21½	10	11	3½
8	34.50	PB 82DD	4.80	PX 82DD	37.00	PB 83DD	5.10	PX 83DD	24	10	11	3½
9	38.50	PB 92DD	5.20	PX 92DD	41.25	PB 93DD	5.55	PX 93DD	26½	10	11	3½
10	42.50	PB102DD	5.60	PX102DD	45.50	PB103DD	5.95	PX103DD	29	10	11	3½

Above prices are for polished finish; for prices of plain finish deduct 10 per cent. from above prices.
Polished boards are mounted on marbleized slate.
Standard Panel Boards have no fuse connections or switch in mains; for prices of these and other extras see pages 46 and 47.
Panel boards will be mounted on any of the foreign or domestic marbles when desired.

Attachments to Standard Panel Boards.



Fuse Connections in Mains.



Knife Switch in Mains.

Price Extra for Fuse Connections in Mains of Standard Panel Boards.

2-Wire, one end, - - -	$1.50
3- " " - - -	2.25
2 " both ends, - -	2.50
3- " " - -	3.50

Price Extra for Lugs Both Ends.

2-Wire, - - - - -	$ .80
3- " - - - -	1.20

Price Extra for Fuse Knife Switch in Mains of Standard Cutout.

25-Amp., 2-Wire, - - -	$8.50
25 " 3 " - - -	11.00
50 " 2 " - - -	12.50
50 " 3 " - - -	16.00
100 " 2 " - - -	19.00
100 " 3 " - - -	25.00

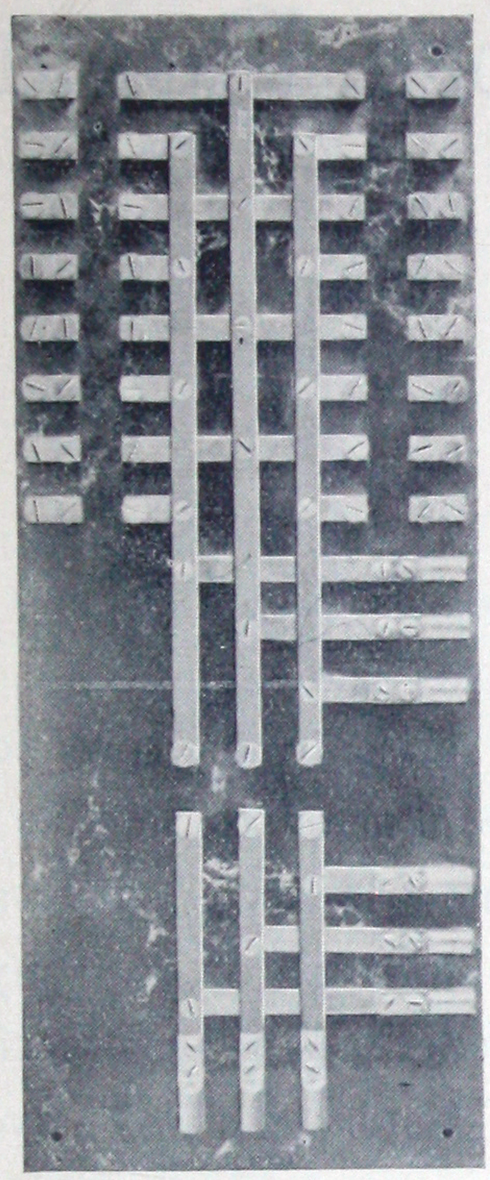
Above Prices are for Polished Finish; for Plain Finish deduct 10 per cent.

ZIMDARS & HUNT, NEW YORK.

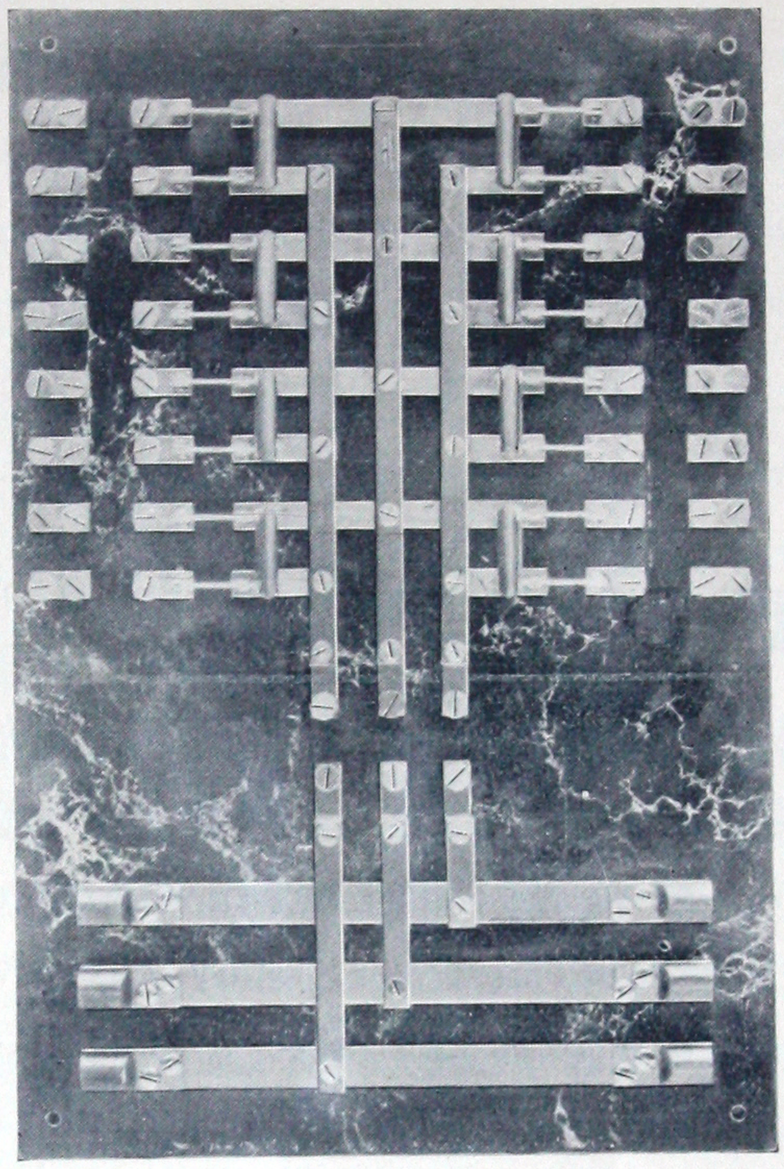
ATTACHMENTS

TO

STANDARD PANEL BOARDS.



METER LOOP IN MAINS.



CONNECTION TO CONTINUOUS MAIN.

Price Extra for Meter Loop Attached to STANDARD PANEL BOARDS.

FOR 10 CIRCUIT PANEL BOARD OR LESS.

PRICE,

2-Wire	$9.00
3 "	12.00

FOR 20 CIRCUIT PANEL BOARD OR LESS.

PRICE,

2-Wire	$10.00
3 "	13.00

Price Extra for Main Connection Attached to STANDARD PANEL BOARD.

PRICE,

2-Wire	with	100	Amp.	Main	$6.00
2 "	"	200	"	"	7.50
2 "	"	300	"	"	9.50
2 "	"	500	"	"	12.50
3 "	"	100	"	"	8.00
3 "	"	200	"	"	10.00
3 "	"	300	"	"	13.00
3 "	"	500	"	"	17.00

ABOVE PRICES ARE FOR POLISHED FINISH; FOR PLAIN FINISH DEDUCT 10%.

SPECIAL PANEL AND FEEDER BOARDS.

IT IS NOT EXPECTED that the Panel Boards shown in the foregoing pages and the Feeder and Connection Boards shown in those following will meet all the conditions that are likely to arise in the practice of the engineer or contractor, but the attempt has been made to include all those general types that from their extended use are now looked upon as standards. There are, however, many cases where in the interest of economy or convenience it is desirable to install Panel or Feeder Boards of special design made specially for the particular purpose in hand. As we have had an extended experience in the design and manufacture of innumerable types of these special Boards, we are particularly well fitted to handle this class of work to the advantage of the Engineer or Contractor, and are prepared to quote figures promptly upon receipt of data on special Panel, Feeder and Connection Boards of all kinds, or we will ourselves prepare and furnish designs when so desired, at a small charge.

ZIMDARS & HUNT, NEW YORK.

Feeder and Main Cutouts for Heavy Currents.

ON the pages following are shown and listed a line of heavy Cutouts that have been specially designed as distribution centers for Mains or Feeders. The many points of merit embodied in these boards will, it is believed, strongly recommend them to the Engineer and Contractor. Among their desirable features, the following may be noted: Simplicity of design, large and well fitted contacts, a liberal distribution of copper, large and heavy connecting lugs on all main and branch bars, heavy cast wing screws for all fuse connections, and strong and substantial construction throughout. They are mounted on thick slate bases of reliable quality unless otherwise ordered. They will be furnished with marble bases when so desired, at an additional cost. No effort has been spared in the design or construction to make these boards strictly first-class in every respect. : : : : : : : : : : :

Meter and Service Boards.

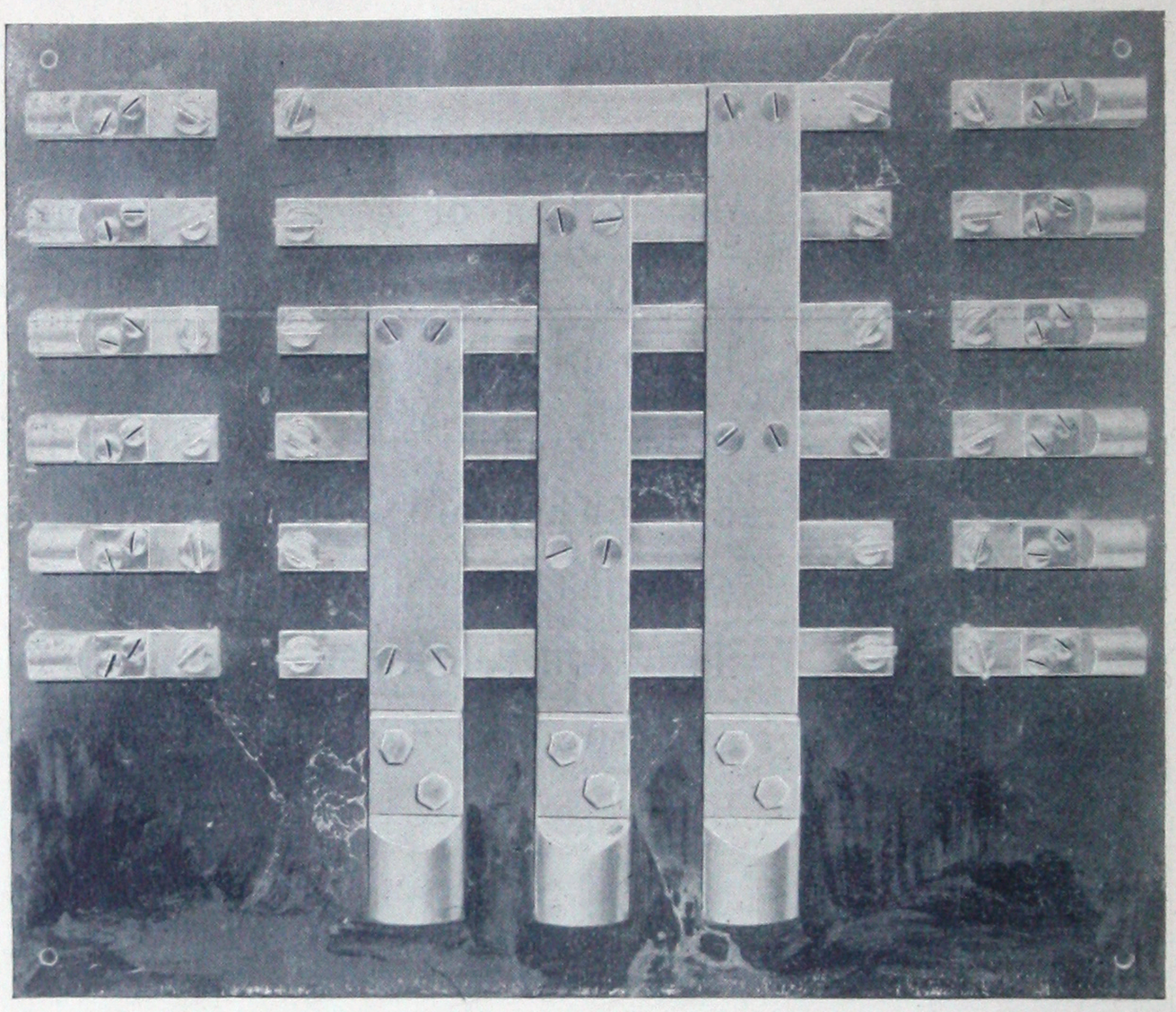
WE make a specialty of the manufacture of slate and marble meter and service boards, and can quote figures on them immediately upon receipt of necessary data. : :

STANDARD FEEDER AND MAIN BOARDS.

TYPE A.

With Fuse Connections in Branches.

Branches on Both Sides of Mains.



Heavy Cast Red Metal Wing Screws and Lugs on all Branches.

Pure Lake Copper Used Throughout.

2 or 3-Wire Mains.

2 or 3-Wire Branches.

ZIMDARS & HUNT, NEW YORK.

TYPE A FEEDER AND MAIN BOARDS.

FUSE CONNECTIONS IN BRANCHES.

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE A1.

MAXIMUM CAPACITY OF MAIN 250 AMPERES; CAPACITY OF BRANCHES 50 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	10.00	FB 22A1	4.00	FX 22A1	15.00	FB 23A1	4.75	FX 23A1	9½	11¼	16	18½
3	13.00	FB 32A1	4.55	FX 32A1	19.50	FB 33A1	5.95	FX 33A1	13	16½	16	18½
4	15.00	FB 42A1	4.55	FX 42A1	22.50	FB 43A1	5.95	FX 43A1	13	16½	16	18½
5	18.00	FB 52A1	5.10	FX 52A1	27.00	FB 53A1	7.15	FX 53A1	16½	21¾	16	18½
6	20.00	FB 62A1	5.10	FX 62A1	30.00	FB 63A1	7.15	FX 63A1	16½	21¾	16	18½
7	23.00	FB 72A1	5.65	FX 72A1	34.50	FB 73A1	8.35	FX 73A1	20	27	16	18½
8	25.00	FB 82A1	5.65	FX 82A1	37.50	FB 83A1	8.35	FX 83A1	20	27	16	18½
9	28.00	FB 92A1	6.20	FX 92A1	42.00	FB 93A1	9.55	FX 93A1	23½	32¼	16	18½
10	30.00	FB102A1	6.20	FX102A1	45.00	FB103A1	9.55	FX103A1	23½	32¼	16	18½

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE A2.

MAXIMUM CAPACITY OF MAIN 500 AMPERES; CAPACITY OF BRANCHES 100 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	18.00	FB 22A2	4.80	FX 22A2	27.00	FB 23A2	5.80	FX 23A2	11	13	17½	20½
3	23.00	FB 32A2	5.70	FX 32A2	34.50	FB 33A2	7.35	FX 33A2	15	19	17½	20½
4	27.00	FB 42A2	5 70	FX 42A2	40.50	FB 43A2	7.35	FX 43A2	15	19	17½	20½
5	32.00	FB 52A2	6.60	FX 52A2	48.00	FB 53A2	8.90	FX 53A2	19	25	17½	20½
6	36.00	FB 62A2	6.60	FX 62A2	54.00	FB 63A2	8.90	FX 63A2	19	25	17½	20½
7	41.00	FB 72A2	7.50	FX 72A2	61.50	FB 73A2	10.45	FX 73A2	23	31	17½	20½
8	45.00	FB 82A2	7.50	FX 82A2	67.50	FB 83A2	10.45	FX 83A2	23	31	17½	20½
9	50.00	FB 92A2	8.40	FX 92A2	75.00	FB 93A2	12.00	FX 93A2	27	37	17½	20½
10	54.00	FB102A2	8.40	FX102A2	81.00	FB103A2	12.00	FX103A2	27	37	17½	20½

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE A3.

MAXIMUM CAPACITY OF MAIN 1,000 AMPERES; CAPACITY OF BRANCHES 200 AMPERES EACH.

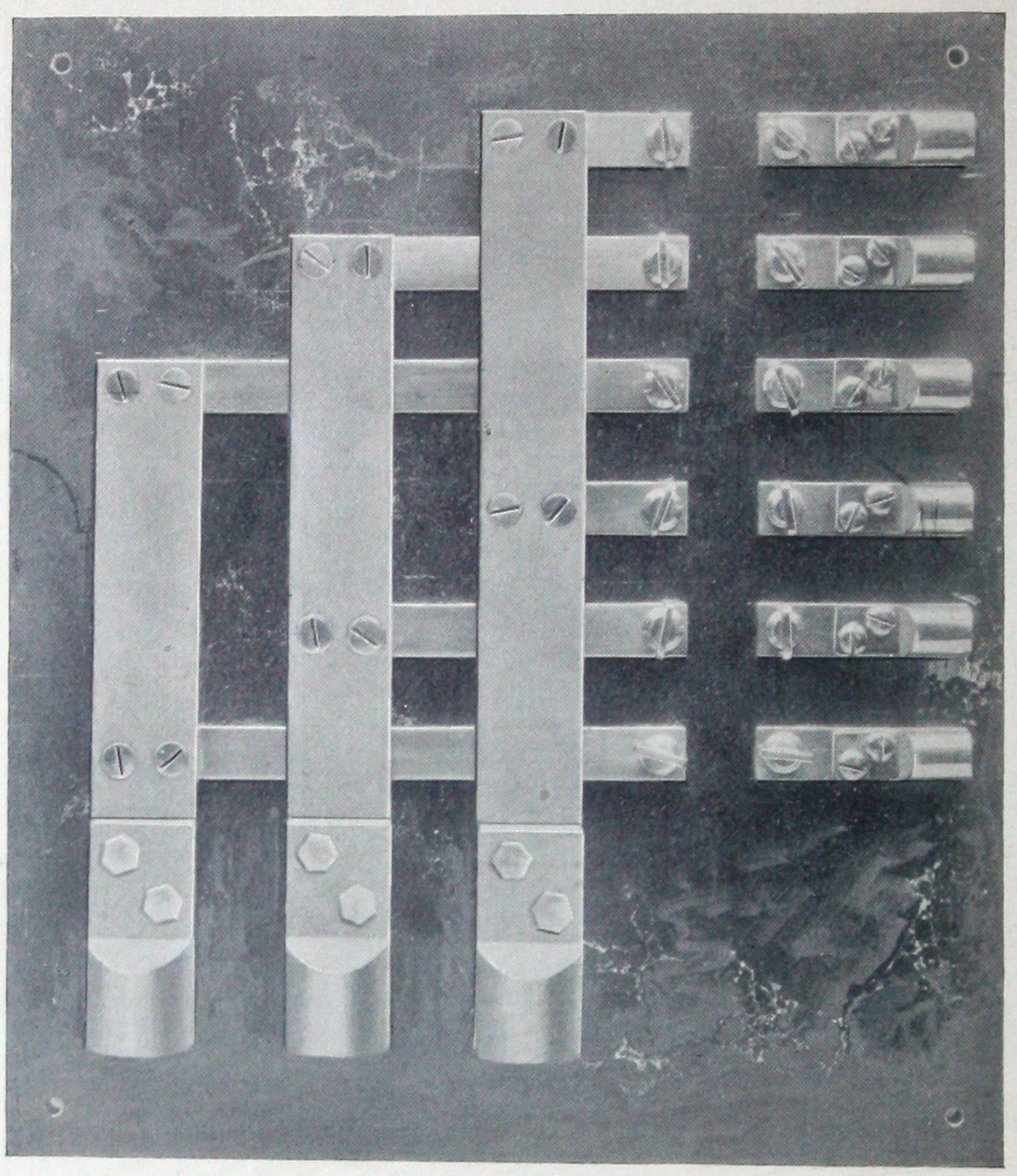
NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	30.00	FB 22A3	6.80	FX 22A3	45.00	FB 23A3	8.45	FX 23A3	14	16½	21	25
3	38.00	FB 32A3	8.20	FX 32A3	57.00	FB 33A3	10.95	FX 33A3	19	24	21	25
4	45.00	FB 42A3	8.20	FX 42A3	67.50	FB 43A3	10.95	FX 43A3	19	24	21	25
5	53.00	FB 52A3	9.60	FX 52A3	79.50	FB 53A3	13.45	FX 53A3	24	31½	21	25
6	60.00	FB 62A3	9.60	FX 62A3	90.00	FB 63A3	13.45	FX 63A3	24	31½	21	25
7	68.00	FB 72A3	11.00	FX 72A3	102.00	FB 73A3	15.95	FX 73A3	29	39	21	25
8	75.00	FB 82A3	11.00	FX 82A3	112.50	FB 83A3	15.95	FX 83A3	29	39	21	25
9	83.00	FB 92A3	12.40	FX 92A3	124.50	FB 93A3	18.45	FX 93A3	34	46½	21	25
10	90.00	FB102A3	12.40	FX102A3	135.00	FB103A3	18.45	FX103A3	34	46½	21	25

Standard Feeder Boards have no fuse connections or switch in mains. For prices of these and other extras, see pages 58, 59 and 60. Above prices are for polish finish. For plain finish, deduct 10 per cent. from above prices. Above prices include connecting lugs on mains and branches.

STANDARD

Feeder and Main Boards.

TYPE AA. WITH FUSE CONNECTIONS IN BRANCHES.
BRANCHES ON ONE SIDE OF MAINS ONLY.



2 OR 3-WIRE MAINS. 2 OR 3-WIRE BRANCHES.

Heavy Cast Red Metal Wing Screws and Lugs on All Branches. Pure Lake Copper used Throughout.

ZIMDARS & HUNT, NEW YORK.

TYPE AA FEEDER AND MAIN BOARDS.

FUSE CONNECTIONS IN BRANCHES.

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE AA1.

CAPACITY OF MAIN, 250 AMPERES; CAPACITY OF BRANCHES, 50 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		LENGTH 2-WIRE.	LENGTH 3-WIRE.	WIDTH 2-WIRE.	WIDTH 3-WIRE.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	11.00	FB 22AA1	3.90	FX 22AA1	16.50	FB 23AA1	5.00	FX 23AA1	13	16½	11½	14
3	14.50	FB 32AA1	4.45	FX 32AA1	21.75	FB 33AA1	6.05	FX 33AA1	16½	21¾	11½	14
4	18.00	FB 42AA1	5.00	FX 42AA1	27.00	FB 43AA1	7.10	FX 43AA1	20	27	11½	14
5	21.50	FB 52AA1	5.55	FX 52AA1	32.25	FB 53AA1	8.15	FX 53AA1	23½	32¼	11½	14
6	25.00	FB 62AA1	6.10	FX 62AA1	37.50	FB 63AA1	9.20	FX 63AA1	27	37½	11½	14
7	28.50	FB 72AA1	6.65	FX 72AA1	42.75	FB 73AA1	10.25	FX 73AA1	30½	42¾	11½	14
8	32.00	FB 82AA1	7.20	FX 82AA1	48.00	FB 83AA1	11.30	FX 83AA1	34	48	11½	14
9	35.50	FB 92AA1	7.75	FX 92AA1	53.25	FB 93AA1	12.35	FX 93AA1	37½	53¼	11½	14
10	39.00	FB102AA1	8.30	FX102AA1	58.50	FB103AA1	13.40	FX103AA1	40	58½	11½	14

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE AA2.

CAPACITY OF MAIN, 500 AMPERES; CAPACITY OF BRANCHES, 100 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		LENGTH 2-WIRE.	LENGTH 3-WIRE.	WIDTH 2-WIRE.	WIDTH 3-WIRE.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	20.00	FB 22AA2	5.40	FX 22AA2	30.00	FB 23AA2	6.35	FX 23AA2	15	19	13½	16½
3	26.50	FB 32AA2	6.15	FX 32AA2	39.75	FB 33AA2	7.75	FX 33AA2	19	25	13½	16½
4	33.00	FB 42AA2	6.90	FX 42AA2	49.50	FB 43AA2	9.15	FX 43AA2	23	31	13½	16½
5	39.50	FB 52AA2	7.65	FX 52AA2	59.25	FB 53AA2	10.55	FX 53AA2	27	37	13½	16½
6	46.00	FB 62AA2	8.40	FX 62AA2	69.00	FB 63AA2	11.95	FX 63AA2	31	43	13½	16½
7	52.50	FB 72AA2	9.15	FX 72AA2	78.75	FB 73AA2	13.35	FX 73AA2	35	49	13½	16½
8	59.00	FB 82AA2	9.90	FX 82AA2	88.50	FB 83AA2	14.75	FX 83AA2	39	55	13½	16½
9	65.50	FB 92AA2	10.65	FX 92AA2	98.25	FB 93AA2	16.15	FX 93AA2	43	61	13½	16½
10	72.00	FB102AA2	11.40	FX102AA2	108.00	FB103AA2	17.55	FX103AA2	47	67	13½	16½

PRICES OF STANDARD FEEDER AND MAIN BOARDS—TYPE AA3.

CAPACITY OF MAIN, 1,000 AMPERES; CAPACITY OF BRANCHES, 200 AMPERES EACH.

NUNBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		FEEDER BOARD.		SLATE BOX AND SLATE FOR DOOR.		LENGTH 2-WIRE.	LENGTH 3-WIRE.	WIDTH 2-WIRE.	WIDTH 3-WIRE.
	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.	PRICE.	CAT. NO.				
2	34.00	FB 22AA3	7.10	FX 22AA3	51.00	FB 23AA3	9.50	FX 23AA3	19	24	15	19
3	45.50	FB 32AA3	8.25	FX 32AA3	68.25	FB 33AA3	11.45	FX 33AA3	24	31½	15	19
4	57.00	FB 42AA3	9.40	FX 42AA3	85.50	FB 43AA3	13.40	FX 43AA3	29	39	15	19
5	68.50	FB 52AA3	10.55	FX 52AA3	102.75	FB 53AA3	15.35	FX 53AA3	34	46½	15	19
6	80.00	FB 62AA3	11.70	FX 62AA3	120.00	FB 63AA3	17.30	FX 63AA3	39	54	15	19
7	91.50	FB 72AA3	12.85	FX 72AA3	137.25	FB 73AA3	19.25	FX 73AA3	44	61½	15	19
8	103.00	FB 82AA3	14.00	FX 82AA3	154.50	FB 83AA3	21.20	FX 83AA3	49	69	15	19
9	114.50	FB 92AA3	15.15	FX 92AA3	171.75	FB 93AA3	23.15	FX 93AA3	54	76½	15	19
10	126.00	FB102AA3	16.30	FX102AA3	189.00	FB103AA3	25.10	FX103AA3	59	84	15	19

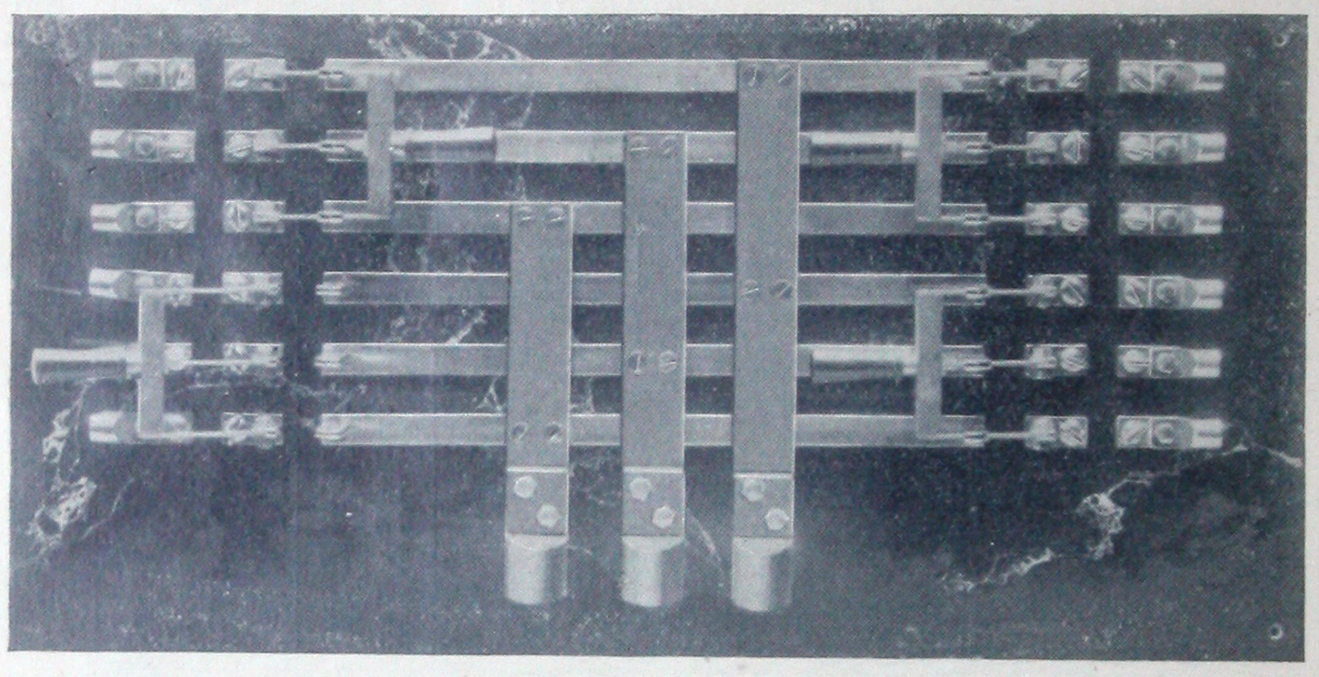
Standard Feeder Boards have no fuse connections or Switch in mains. For prices of these and other extras, see pages 58, 59 and 60. Above prices are for polished finish. For plain finish deduct 10 per cent. from above prices.
Above prices include connecting lugs on mains and branches.

Standard Feeder and Main Boards.

TYPE B.

With Switches and Fuse Connections in Branches.

Branches on Both Sides of Mains.



Heavy Cast Red Metal Wing Screws and Lugs on all Branches.

Pure Lake Copper Used Throughout.

2 or 3-Wire Mains.

2 or 3-Wire Branches.

ZIMDARS & HUNT, NEW YORK.

TYPE B FEEDER AND MAIN BOARDS.

SWITCHES AND FUSE CONNECTIONS IN BRANCHES.

PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE B1.

MAXIMUM CAPACITY OF MAIN, 250 AMPERES; CAPACITY OF BRANCHES, 50 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2 WIRE MAINS AND 2-WIRE BRANCHES				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	22.00	FB 22B1	5.90	FX 22B1	33.00	FB 23B1	6.90	FX 23B1	9½	11¼	29	31½
3	31.00	FB 32B1	7.15	FX 32B1	46.50	FB 33B1	8.85	FX 33B1	13	16½	29	31½
4	39.00	FB 42B1	7.15	FX 42B1	58.50	FB 43B1	8.85	FX 43B1	13	16½	29	31½
5	48.00	FB 52B1	8.40	FX 52B1	72.00	FB 53B1	10.80	FX 53B1	16½	21¾	29	31½
6	56.00	FB 62B1	8.40	FX 62B1	84.00	FB 63B1	10.80	FX 63B1	16½	21¾	29	31½
7	65.00	FB 72B1	9.65	FX 72B1	97.50	FB 73B1	12.75	FX 73B1	20	27	29	31½
8	73.00	FB 82B1	9.65	FX 82B1	109.50	FB 83B1	12.75	FX 83B1	20	27	29	31½
9	82.00	FB 92B1	10.90	FX 92B1	123.00	FB 93B1	14.70	FX 93B1	23½	32¼	29	31½
10	90.00	FB102B1	10.90	FX102B1	135.00	FB103B1	14.70	FX103B1	23½	32¼	29	31½

PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE B2.

MAXIMUM CAPACITY OF MAIN, 500 AMPERES; CAPACITY OF BRANCHES, 100 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	36.00	FB 22B2	7.85	FX 22B2	54.00	FB 23B2	9.65	FX 23B2	11	13	32½	35½
3	50.00	FB 32B2	9.30	FX 32B2	75.00	FB 33B2	11.80	FX 33B2	15	19	32½	35½
4	63.00	FB 42B2	9.30	FX 42B2	94.50	FB 43B2	11.80	FX 43B2	15	19	32½	35½
5	77.00	FB 52B2	10.75	FX 52B2	115.50	FB 53B2	13.95	FX 53B2	19	25	32½	35½
6	90.00	FB 62B2	10.75	FX 62B2	135.00	FB 63B2	13.95	FX 63B2	19	25	32½	35½
7	104.00	FB 72B2	12.20	FX 72B2	156.00	FB 73B2	16.10	FX 73B2	23	31	32½	35½
8	117.00	FB 82B2	12.20	FX 82B2	175.50	FB 83B2	16.10	FX 83B2	23	31	32½	35½
9	131.00	FB 92B2	13.65	FX 92B2	196.50	FB 93B2	18.25	FX 93B2	27	37	32½	35½
10	144.00	FB102B2	13.65	FX102B2	216.00	FB103B2	18.25	FX103B2	27	37	32½	35½

PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE B3.

MAXIMUM CAPACITY OF MAIN, 1,000 AMPERES; CAPACITY OF BRANCHES, 200 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2 WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.					
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
2	54.00	FB 22B3	12.50	FX 22B3	81.00	FB 23B3	14.40	FX 23B3	14	16½	44	48
3	74.00	FB 32B3	14.90	FX 32B3	111.00	FB 33B3	18.35	FX 33B3	19	24	44	48
4	93.00	FB 42B3	14.90	FX 42B3	139.50	FB 43B3	18.35	FX 43B3	19	24	44	48
5	113.00	FB 52B3	17.30	FX 52B3	169.50	FB 53B3	22.30	FX 53B3	24	31½	44	48
6	132.00	FB 62B3	17.30	FX 62B3	198.00	FB 63B3	22.30	FX 63B3	24	31½	44	48
7	152.00	FB 72B3	19.70	FX 72B3	228.00	FB 73B3	26.25	FX 73B3	29	39	44	48
8	171.00	FB 82B3	19.70	FX 82B3	256.50	FB 83B3	26.25	FX 83B3	29	39	44	48
9	191.00	FB 92B3	22.10	FX 92B3	285.50	FB 93B3	30.20	FX 93B3	34	46½	44	48
10	210.00	FB102B3	22.10	FX102B3	315.00	FB103B3	30.20	FX103B3	34	46½	44	48

Standard Feeder Boards have no Fuse Connections or Switch in Mains. For prices of these and other extras, see pages 58, 59 and 60. Above prices are for Polished Finish; for Plain Finish, deduct 10% from above prices.

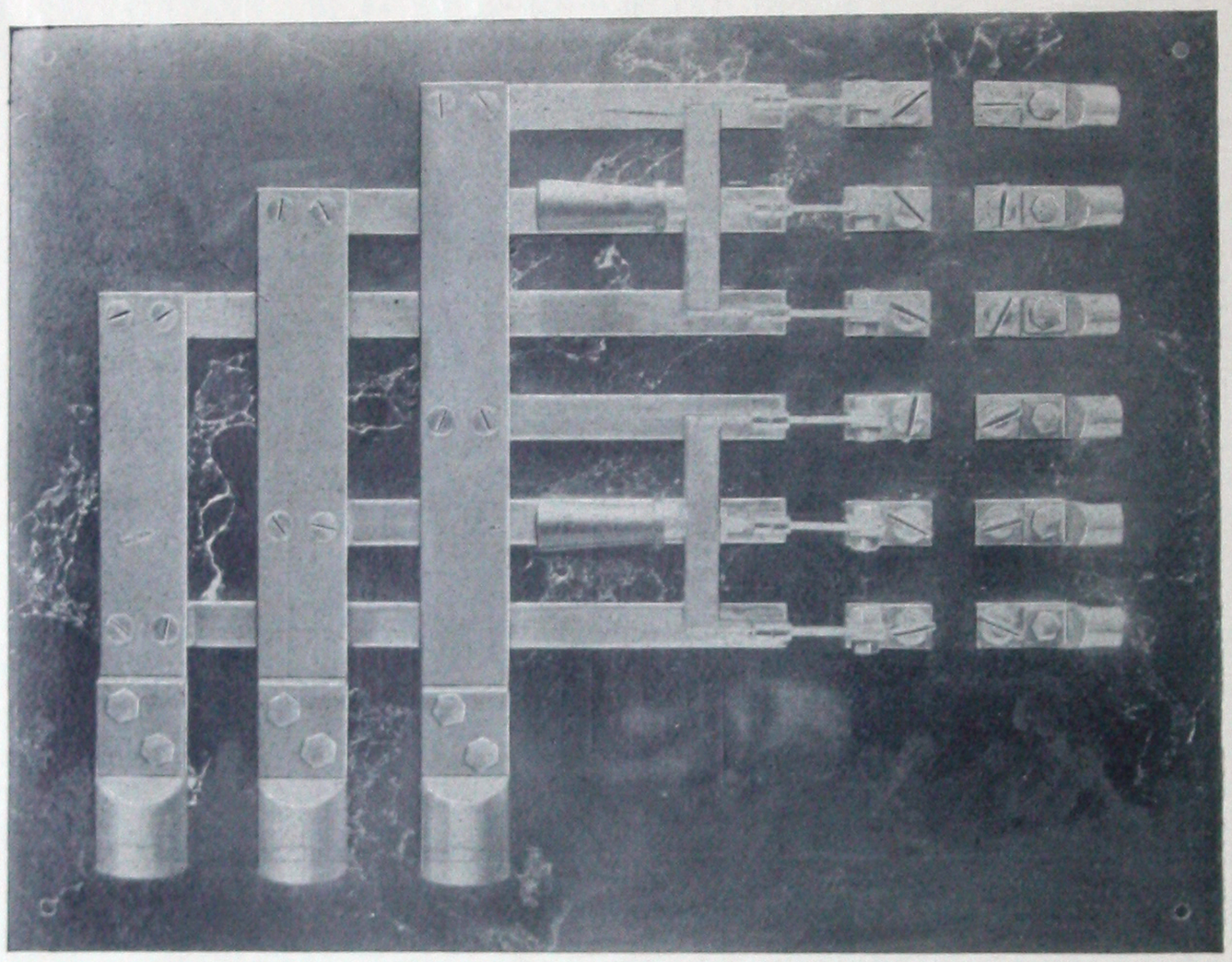
Above prices include Connecting Lugs on Mains and Branches.

Standard Feeder and Main Boards.

TYPE BB.

WITH SWITCHES AND FUSE CONNECTIONS IN BRANCHES.

BRANCHES ON ONE SIDE OF MAINS ONLY.



2 OR 3-WIRE MAINS. 2 OR 3-WIRE BRANCHES.

Heavy Cast Red Metal Wing Screws and Lugs on All Branches. Pure Lake Copper used Throughout.

ZIMDARS & HUNT, NEW YORK.

TYPE BB FEEDER AND MAIN BOARDS.

SWITCHES AND FUSE CONNECTIONS IN BRANCHES.

PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE BB1.

MAXIMUM CAPACITY OF MAIN, 250 AMPERES; CAPACITY OF BRANCHES, 50 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.		Length 2-Wire.	Length 3-Wire.	Width. 2-Wire.	Width. 3-Wire.
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.				
2	23.00	FB 22BB1	5.05	FX 22BB1	34.50	FB 23BB1	6.40	FX 23BB1	13	16½	18	20½
3	32.50	FB 32BB1	5.85	FX 32BB1	48.75	FB 33BB1	7.75	FX 33BB1	16½	21¾	18	20½
4	42.00	FB 42BB1	6.65	FX 42BB1	63.00	FB 43BB1	9.10	FX 43BB1	20	27	18	20½
5	51.50	FB 52BB1	7.45	FX 52BB1	77.25	FB 53BB1	10.45	FX 53BB1	23½	32¼	18	20½
6	61.00	FB 62BB1	8.25	FX 62BB1	91.50	FB 63BB1	11.80	FX 63BB1	27	37½	18	20½
7	70.50	FB 72BB1	9.05	FX 72BB1	105.75	FB 73BB1	13.15	FX 73BB1	30½	42¾	18	20½
8	80.00	FB 82BB1	9.85	FX 82BB1	120.00	FB 83BB1	14.50	FX 83BB1	34	48	18	20½
9	89.50	FB 92BB1	10.65	FX 92BB1	134.25	FB 93BB1	15.85	FX 93BB1	37½	53¼	18	20½
10	99.00	FB102BB1	11.45	FX102BB1	148.50	FB103BB1	17.20	FX103BB1	40	58½	18	20½

PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE BB2.

MAXIMUM CAPACITY OF MAIN, 500 AMPERES; CAPACITY OF BRANCHES, 100 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.		Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.				
2	38.00	FB 22BB2	6.70	FX 22BB2	57.00	FB 23BB2	8.45	FX 23BB2	15	19	20	23
3	53.50	FB 32BB2	7.70	FX 32BB2	80.25	FB 33BB2	10.15	FX 33BB2	19	25	20	23
4	69.00	FB 42BB2	8.70	FX 42BB2	103.50	FB 43BB2	11.85	FX 43BB2	23	31	20	23
5	84.50	FB 52BB2	9.70	FX 52BB2	126.75	FB 53BB2	13.55	FX 53BB2	27	37	20	23
6	100.00	FB 62BB2	10.70	FX 62BB2	150.00	FB 63BB2	15.25	FX 63BB2	31	43	20	23
7	115.50	FB 72BB2	11.70	FX 72BB2	173.25	FB 73BB2	16.95	FX 73BB2	35	49	20	23
8	131.00	FB 82BB2	12.70	FX 82BB2	196.50	FB 83BB2	18.65	FX 83BB2	39	55	20	23
9	146.50	FB 92BB2	13.70	FX 92BB2	219.75	FB 93BB2	20.35	FX 93BB2	43	61	20	23
10	162.00	FB102BB2	14.70	FX102BB2	243.00	FB103BB2	22.05	FX103BB2	47	67	20	23

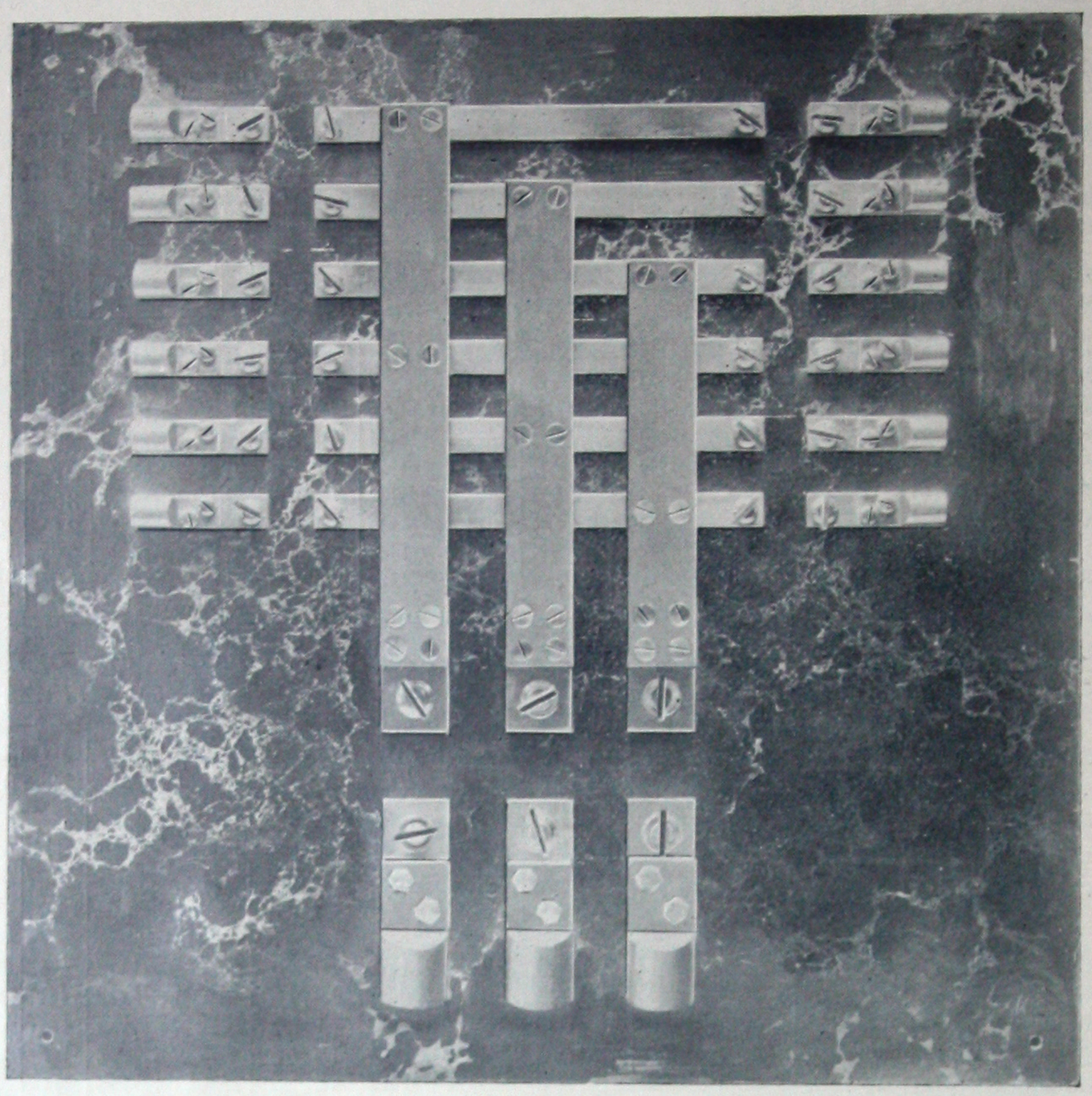
PRICES OF STANDARD FEEDER AND MAIN BOARDS.—TYPE BB3.

MAXIMUM CAPACITY OF MAIN, 1,000 AMPERES; CAPACITY OF BRANCHES, 200 AMPERES EACH.

NUMBER OF BRANCH CIRCUITS.	2-WIRE MAINS AND 2-WIRE BRANCHES.				3-WIRE MAINS AND 3-WIRE BRANCHES.				DIMENSIONS OF FEEDER BOARD.			
	Feeder Board.		Slate Box and Slate for Door.		Feeder Board.		Slate Box and Slate for Door.		Length 2-Wire.	Length 3-Wire.	Width 2-Wire.	Width 3-Wire.
	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.	Price.	Cat. No.				
2	58.00	FB 22BB3	10.25	FX 22BB3	87.00	FB 23BB3	13.15	FX 23BB3	19	24	27	31
3	81.50	FB 32BB3	11.90	FX 32BB3	122.25	FB 33BB3	15.90	FX 33BB3	24	31½	27	31
4	105.00	FB 42BB3	13.55	FX 42BB3	157.50	FB 43BB3	18.65	FX 43BB3	29	39	27	31
5	128.50	FB 52BB3	15.20	FX 52BB3	192.75	FB 53BB3	21.40	FX 53BB3	34	46½	27	31
6	152.00	FB 62BB3	16.85	FX 62BB3	228.00	FB 63BB3	24.15	FX 63BB3	39	54	27	31
7	175.50	FB 72BB3	18.50	FX 72BB3	263.25	FB 73BB3	26.90	FX 73BB3	44	61½	27	31
8	199.00	FB 82BB3	20.15	FX 82BB3	298.50	FB 83BB3	29.65	FX 83BB3	49	69	27	31
9	222.50	FB 92BB3	21.80	FX 92BB3	333.75	FB 93BB3	32.40	FX 93BB3	54	76½	27	31
10	246.00	FB102BB3	23.45	FX102BB3	369.00	FB103BB3	35.15	FX103BB3	59	84	27	31

Standard Feeder Boards have no Fuse Connections or Switch in Mains. For prices of these and other extras, see pages 58, 59 and 60. Above prices are for Polished Finish; for Plain Finish deduct 10% from above prices.
Above prices include connecting Lugs on Mains and Branches.

Attachments to Standard Feeder and Main Boards.



FUSE CONNECTIONS IN MAINS.

Price Extra for Fuse Connections in Mains of Standard Feeder and Main Boards.

250 AMP. MAIN.

2-Wire one end	$2.50
3 " " "	3.75
2 " both ends	4.50
3 " " "	6.75

500 AMP. MAIN.

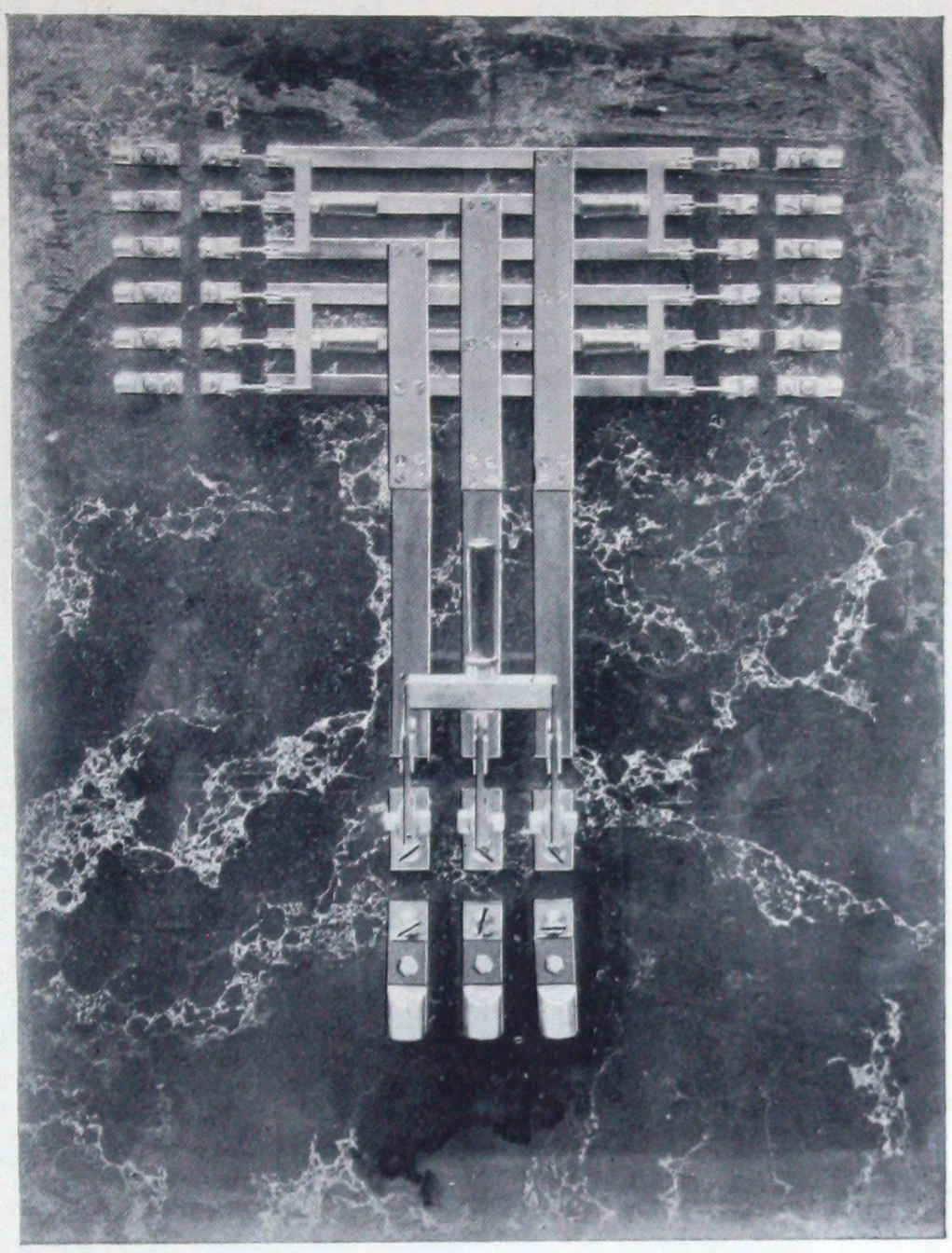
2-Wire one end	4.50
3 " " "	6.75
2 " both ends	8.50
3 " " "	12.75

1000 AMP. MAIN.

2-Wire, one end	8.50
3 " " "	12.75
2 " both ends	16.00
3 " " "	24.00

Above Prices are for Polished Finish; for Plain Finish deduct 10 per cent.

Attachments to Standard Feeder and Main Boards.



KNIFE SWITCH IN MAINS.

Price Extra for Fuse Knife Switch in Mains of Standard Feeder and Main Boards.

250	Amp.,	2	- Wire,	$24.50
250	"	3	"	35.00
500	"	2	"	32.00
500	"	3	"	46.00
1000	"	2	"	80.00
1000	"	3	"	117.00

Above Prices are for Polished Finish; for Plain Finish deduct 10 per cent.

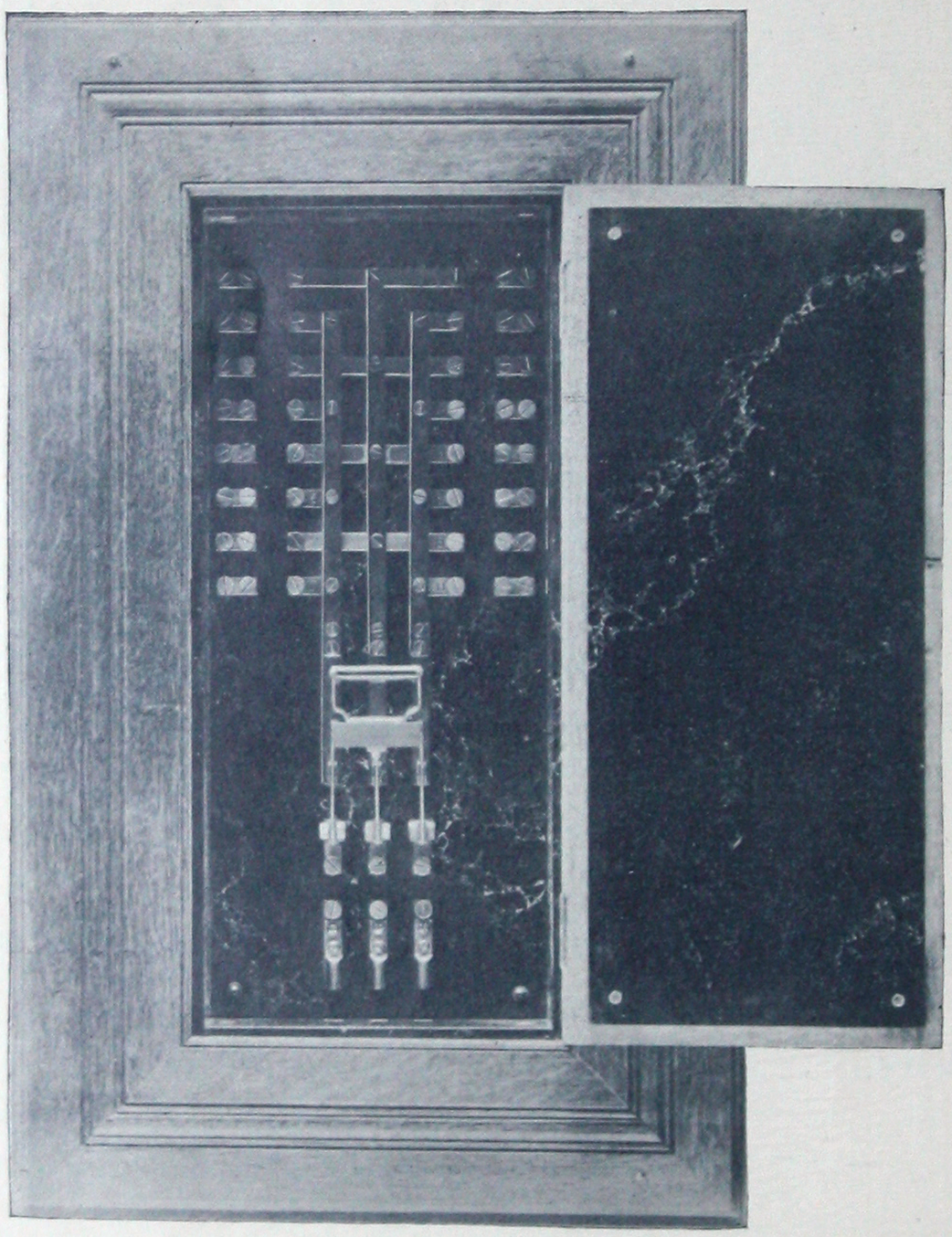
Attachments to Standard Feeder and Main Boards.

LUGS AT BOTH ENDS OF MAINS.

Price, 2-Wire, 250 Amp				$2.00
" 3	"	"	"	3.00
" 2	"	500	"	4.00
" 3	"	"	"	6.00
" 2	"	1000	"	9.00
" 3	"	"	"	13.50

METER LOOP IN MAINS.

Price, 2-Wire, 250 Amp				$18.00
" 3	"	"	"	26.00
" 2	"	500	"	35.00
" 3	"	"	"	41.00
" 2	"	1000	"	58.00
" 3	"	"	"	85.00

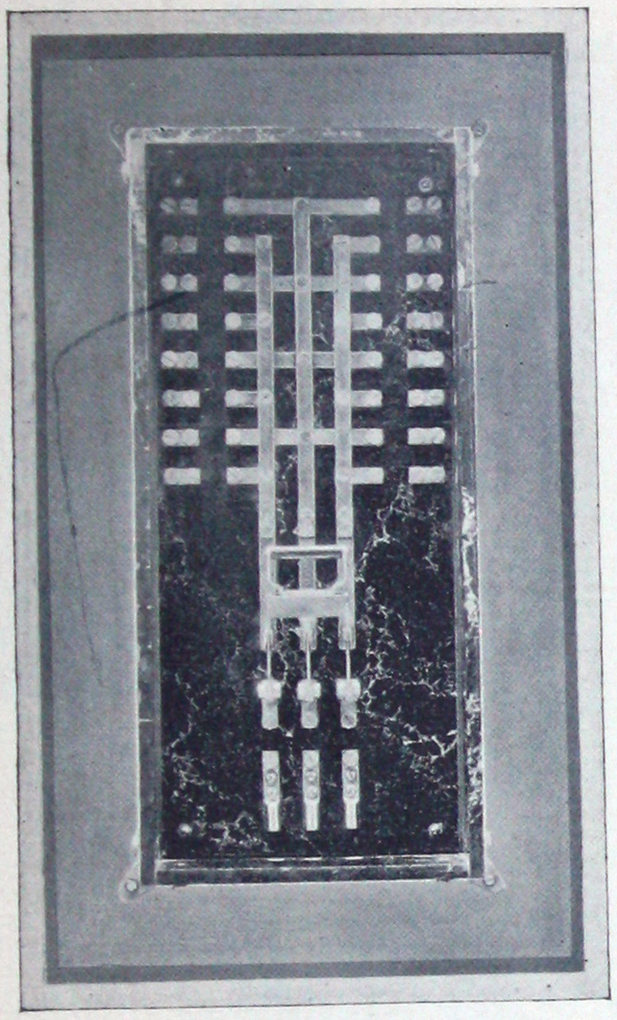


SHOWING COMPLETE CABINET FOR PANEL BOARDS.

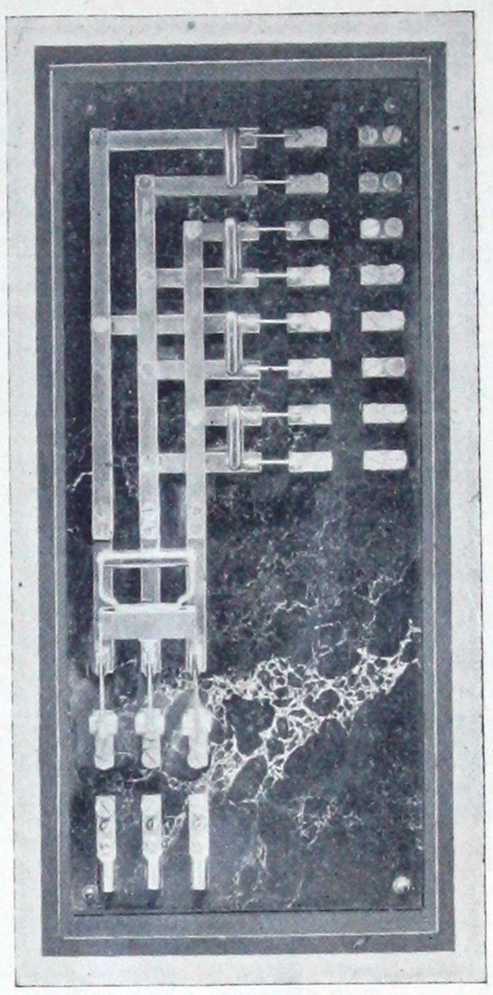
Quotations Furnished upon Request.

ZIMDARS & HUNT, NEW YORK.

...CUTOUT CABINETS...



SHOWING PANEL BOARD MOUNTED WITH SLATE AND WOOD BOX AND CONNECTION COMPARTMENT.



SHOWING PANEL BOARD MOUNTED WITH SLATE AND WOOD BOX BUT NO CONNECTION COMPARTMENT.

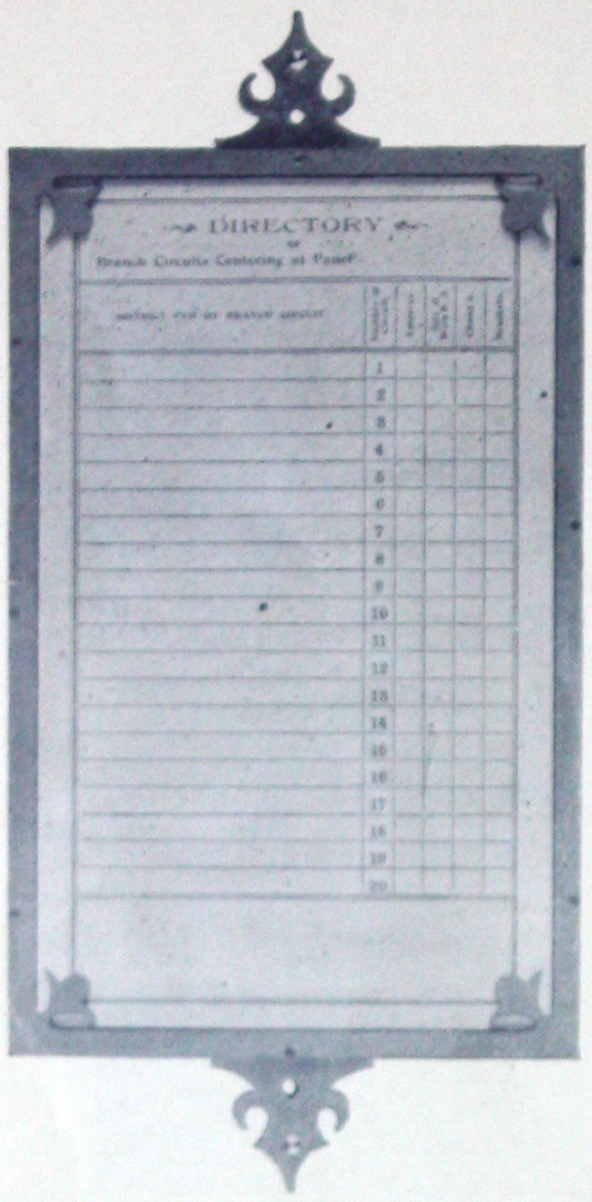
QUOTATIONS ON WOOD BOXES FOR PANEL AND FEEDER BOARDS WILL BE FURNISHED UPON REQUEST.

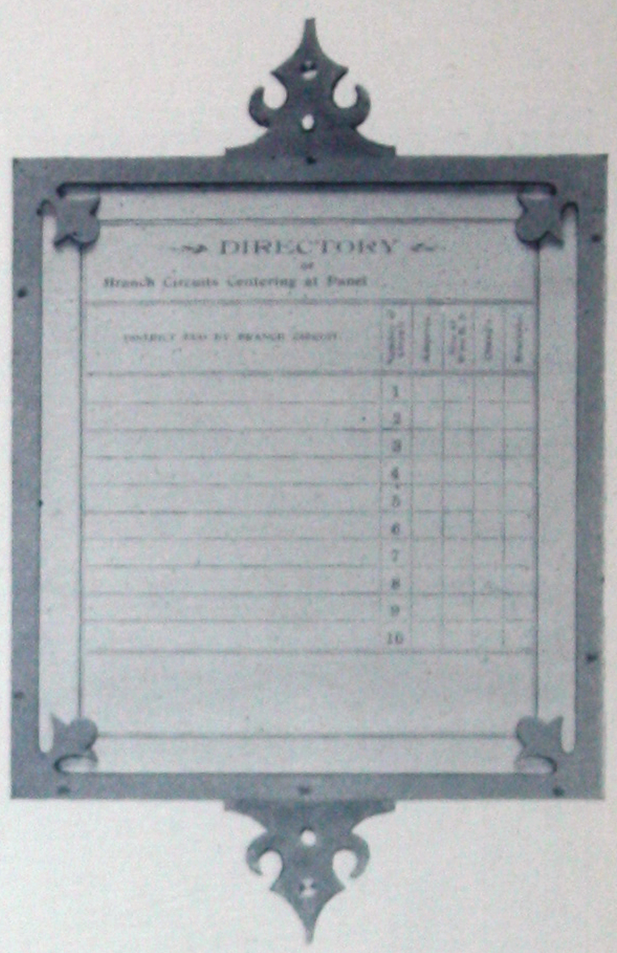
ZIMDARS & HUNT, NEW YORK.

DIRECTORY SHEETS AND FRAMES

FOR

PANEL BOARDS.





ILLUSTRATIONS ARE APPROXIMATELY ONE-THIRD SIZE.

Price of	20	Circuit	Frames,	Per	Dozen $7.50
"	10	"	"	"	..... 6.00
"	20	"	Sheets	"	..... .40
"	10	"	"	"	..... .30

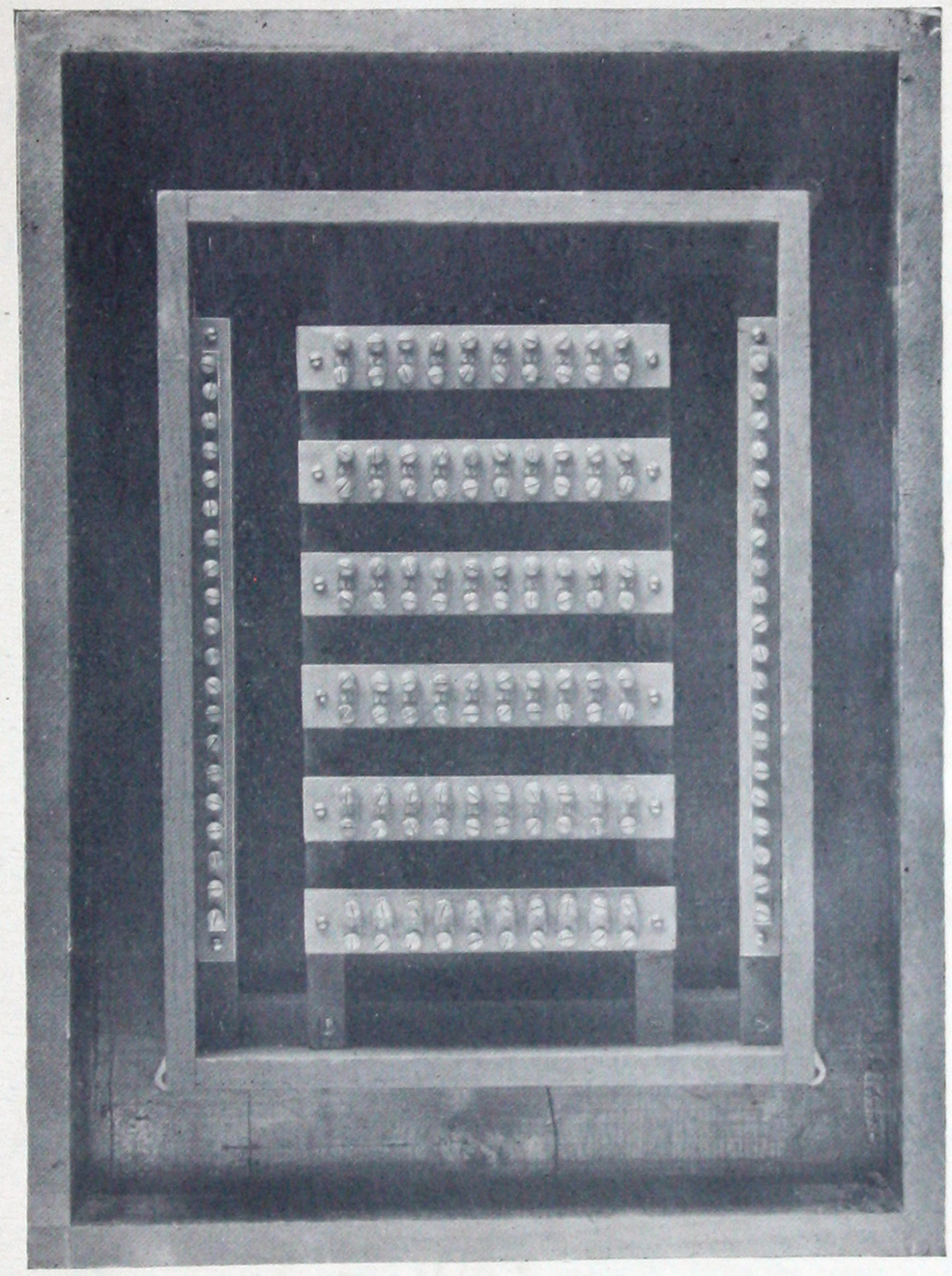
In addition to the above we make and have constantly on hand a variety of other forms of Directories.

ZIMDARS & HUNT, NEW YORK.

INTER-CONNECTION BOXES

FOR

CALL BELL, ANNUNCIATOR, TELEPHONE AND FIRE ALARM SYSTEMS.





We make a specialty of Inter-connection Boxes for use in Call Bell, Telephone, Annunciator and Fire Alarm Systems, and are prepared to quote figures on them promptly when requested.

ZIMDARS & HUNT, NEW YORK.

INDEX TO SECTION B.

REMARKS ON ZIMDARS & HUNT PANEL BOARDS 37

ILLUSTRATIONS OF TYPES A AND AA PANEL BOARDS 38

PRICES OF TYPES A AND AA PANEL BOARDS 39

ILLUSTRATIONS OF TYPES B AND BB PANEL BOARDS 40

PRICES OF TYPES B AND BB PANEL BOARDS 41

ILLUSTRATIONS OF TYPES C AND CC PANEL BOARDS 42

PRICES OF TYPES C AND CC PANEL BOARDS 43

ILLUSTRATIONS OF TYPES D AND DD PANEL BOARDS 44

PRICES OF TYPES D AND DD PANEL BOARDS 45

ILLUSTRATIONS AND PRICES EXTRA OF LUGS ON BOTH ENDS OF MAINS, FUSE CONNECTIONS IN MAINS, AND SWITCHES IN MAINS 46

ILLUSTRATIONS AND PRICES EXTRA OF METER LOOP AND CONTINUOUS MAIN CONNECTION 47

REMARKS ON SPECIAL PANEL AND FEEDER BOARDS 48

REMARKS ON FEEDER AND MAIN CUTOUTS FOR HEAVY CURRENTS AND METER AND SERVICE BOARDS 49

ILLUSTRATION OF TYPE A FEEDER AND MAIN BOARD 50

PRICES OF TYPE A FEEDER AND MAIN BOARDS 51

ILLUSTRATION OF TYPE AA FEEDER AND MAIN BOARD 52

PRICES OF TYPE AA FEEDER AND MAIN BOARDS 53

ILLUSTRATION OF TYPE B FEEDER AND MAIN BOARD 54

PRICES OF TYPE B FEEDER AND MAIN BOARDS 55

ILLUSTRATION OF TYPE BB FEEDER AND MAIN BOARDS 56

PRICES OF TYPE BB FEEDER AND MAIN BOARDS 57

ILLUSTRATION AND PRICES EXTRA OF FUSE CONNECTIONS IN MAINS 58

ILLUSTRATION AND PRICES EXTRA OF KNIFE SWITCH IN MAINS 59

PRICES EXTRA OF LUGS ON BOTH ENDS OF MAINS AND OF METER LOOP IN MAINS, AND ILLUSTRATION OF PANEL BOARD CABINET 60

ILLUSTRATIONS OF PANEL BOARDS MOUNTED IN BOXES WITH AND WITHOUT CONNECTION COMPARTMENT 61

ILLUSTRATIONS AND PRICES OF PANEL BOARD DIRECTORIES 62

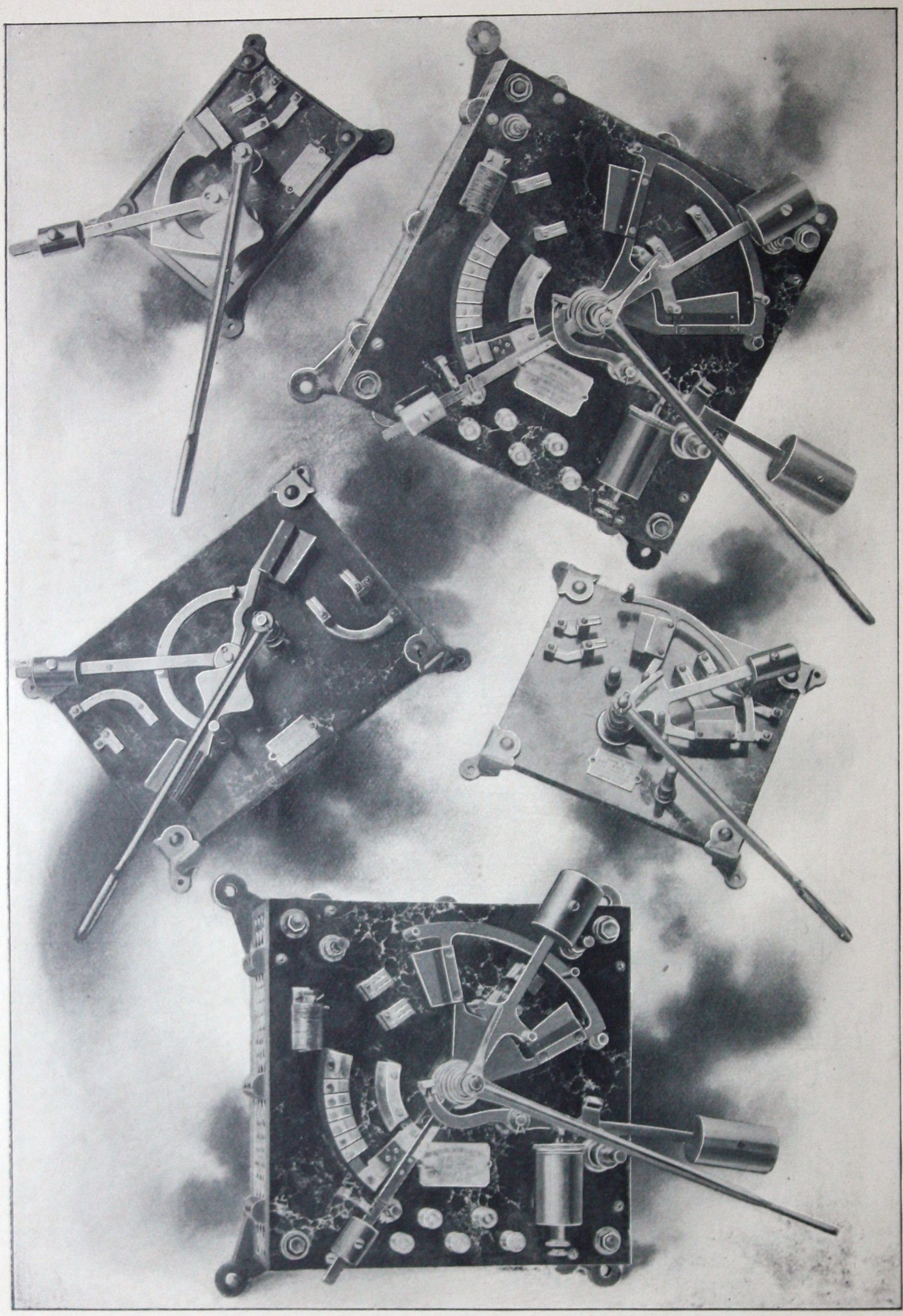
ILLUSTRATION OF INTER-CONNECTION BOX 63

SECTION C.

AUTOMATIC SWITCHES

....AND....

MOTOR STARTERS.



ZIMDARS & HUNT, NEW YORK.

OUR

Automatic Switches

... AND ...

Motor Starters. : : : :

ON the following pages are illustrated and described a full line of high-grade automatic switches and motor starters especially adapted to elevator, pump, crane and other work.

As the conditions of this work are such as to require absolute reliability in the device employed, an effort has been made in the designing to eliminate as far as possible all actions upon which absolute reliance could not be placed, and for this reason springs and solenoids have been rejected and weights adopted to furnish the operating force. These switches and starters are thus free from the defects inherent in apparatus of this class in which springs or solenoids are employed.

The electrical details have been carefully looked after, and all current-carrying parts and contact faces have been proportioned with due regard to the current they have to carry. Mechanical details have been arranged and proportioned so that possible wear is reduced to a minimum, and where practicable, are separately adjustable. The extreme care expended on the design of these articles has extended to the smallest detail, and the workmanship throughout is maintained at the highest standard, skilled and careful mechanics only being employed.

A careful study of the illustrations and descriptive matter will not fail to clearly show their excellent features and their entire freedom from possible sources of trouble.

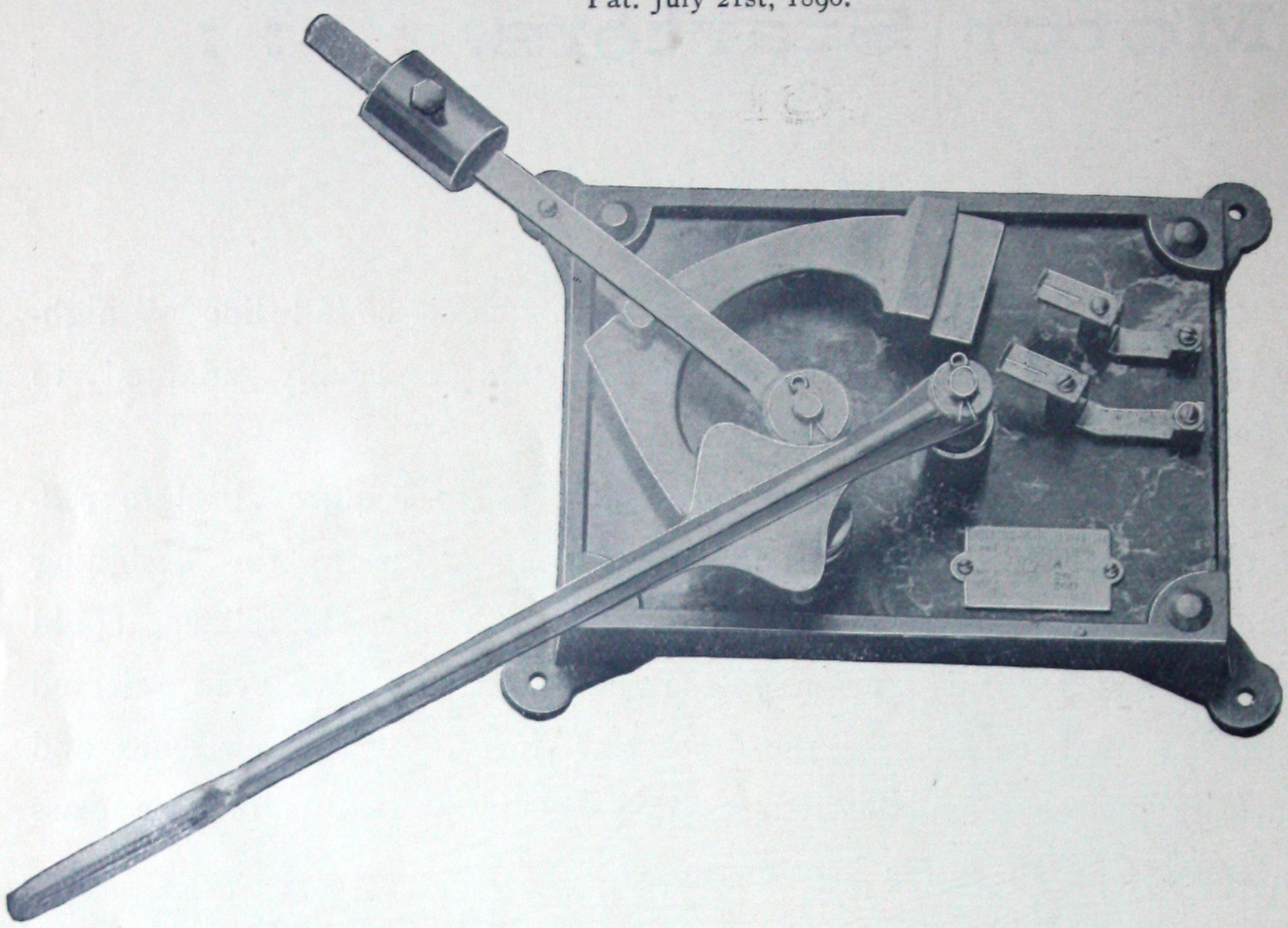
ZIMDARS & HUNT, NEW YORK.

AUTOMATIC SWITCHES.

TYPE A.

SINGLE POLE.

Pat. July 21st, 1896.



MAX. VOLTS 300. *MAX. AMPS. 20.*

IN the above illustration is shown our **Type A Low Tension Automatic Switch,** which is adapted for use in starting from a distance, small series wound motors, which do not require external resistance being thrown in at the starting. The size of motor that it will be possible to properly start with this switch will depend on the resistance of the motor itself, but as a rule, it is not found desirable to apply it to motors (series) of over ½ to 1 HP.

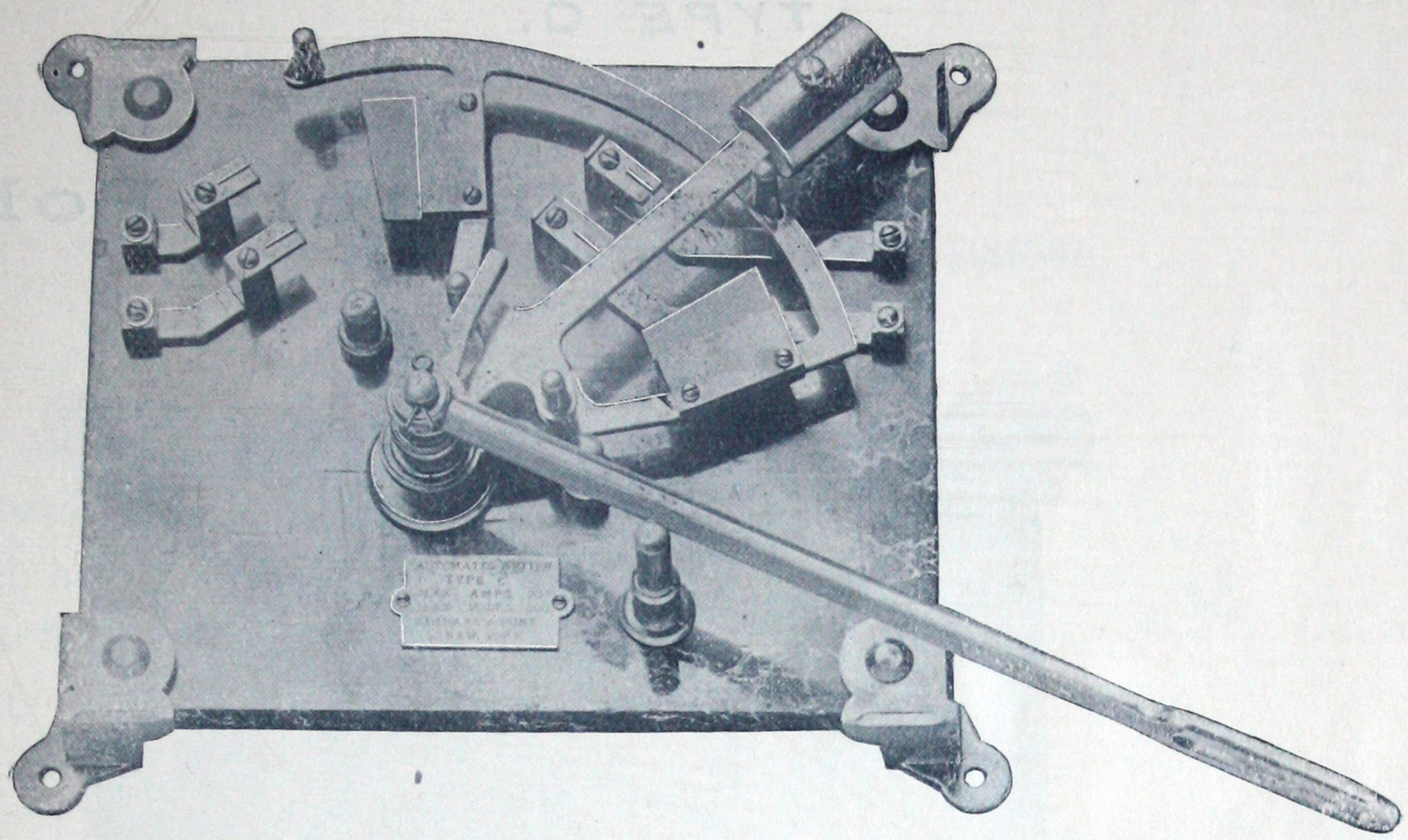
For light pump and other work this switch wiil be found most desirable.

	Plain.	Polished.	Cat. No.
PRICE.....	$12.00	$15.00	AS13A

AUTOMATIC SWITCHES.

TYPE B.

DOUBLE POLE.



MAX. VOLTS 300. *MAX. AMPS. 20.*

For Direct or Alternating Current.

ESPECIALLY ADAPTED FOR STARTING TWO AND THREE PHASE MOTORS.

THE switch shown above has been designed for use where the double pole arrangement is preferred over the single pole, and also for starting small multi-phase motors. Contacts, etc., are the same as in the single pole switch shown on opposite page.

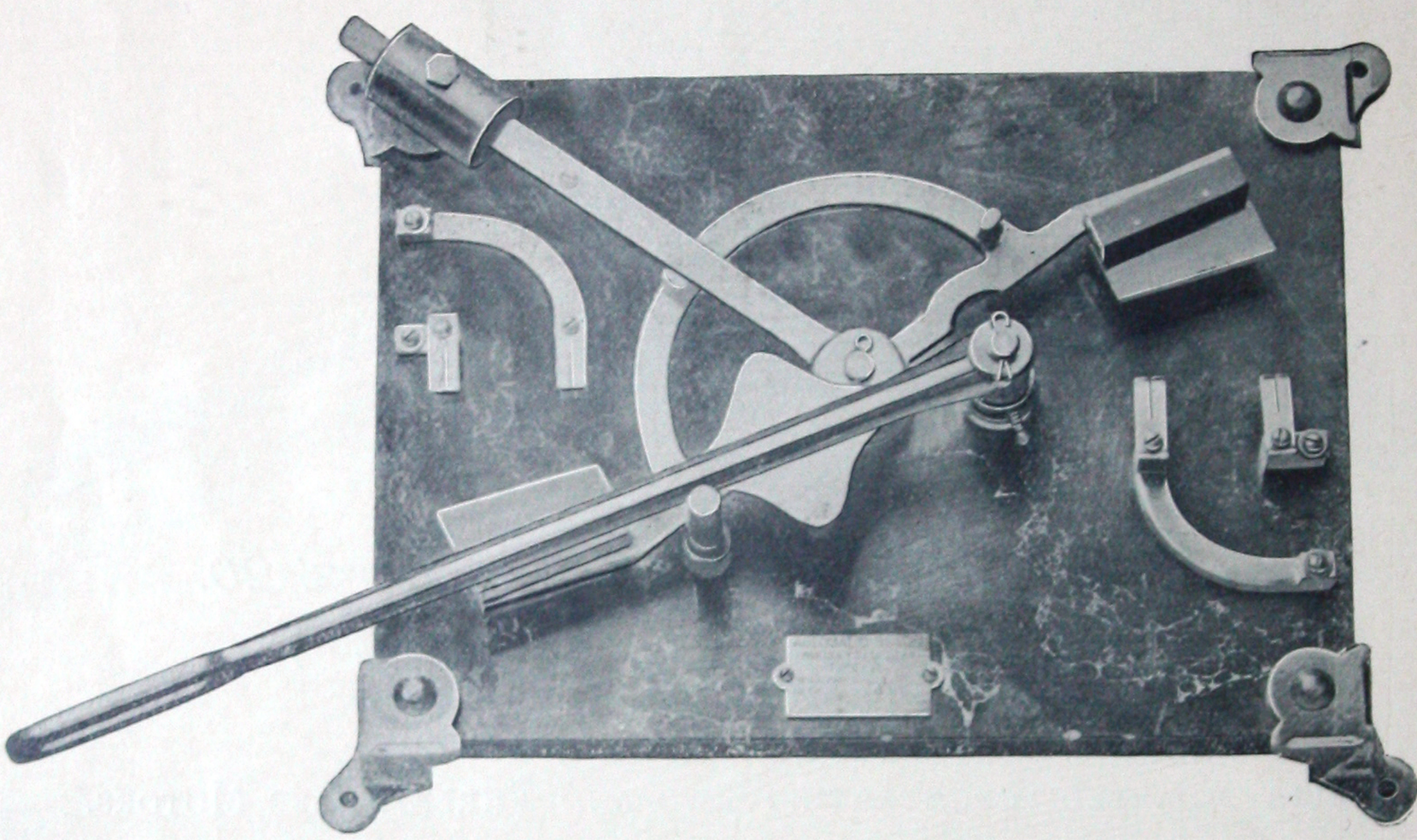
As with all our automatic switches, great care has been exercised in the designing, to make them absolutely reliable in every respect. They are strongly and carefully made in every detail, the workmanship being all that could be desired.

	Plain.	Polished.	Cat. No.
PRICE.....	$14.00	$17.00	AS13B

Automatic Switches

TYPE C.

Double Pole.



TYPE C.

MAX VOLTS 600

MAX. AMPS. 15

Especially Adapted for Starting Motors on 500 or 600 Volt Power Circuits and for Multi-Phase Work.

ZIMDARS & HUNT, NEW YORK.

500 VOLT

Automatic Switches

TYPE C.

For Direct or Alternating Current Systems.

ON the opposite page is illustrated our **Type C Automatic Switch** for 500 or 600 volt power circuits. This switch has been especially designed to meet the demand for a first-class automatic switch for starting small motors on railway power circuits, but it is also a desirable type for alternating current work.

The current-carrying parts are kept on opposite sides of the switch, thereby lessening the possibility of accidental short circuit. A wide break space is also provided, to prevent the possibility of drawing an arc on breaking the circuit.

This switch is strictly high grade in every particular, and has given entire satisfaction wherever installed.

Price of Type C Switch:

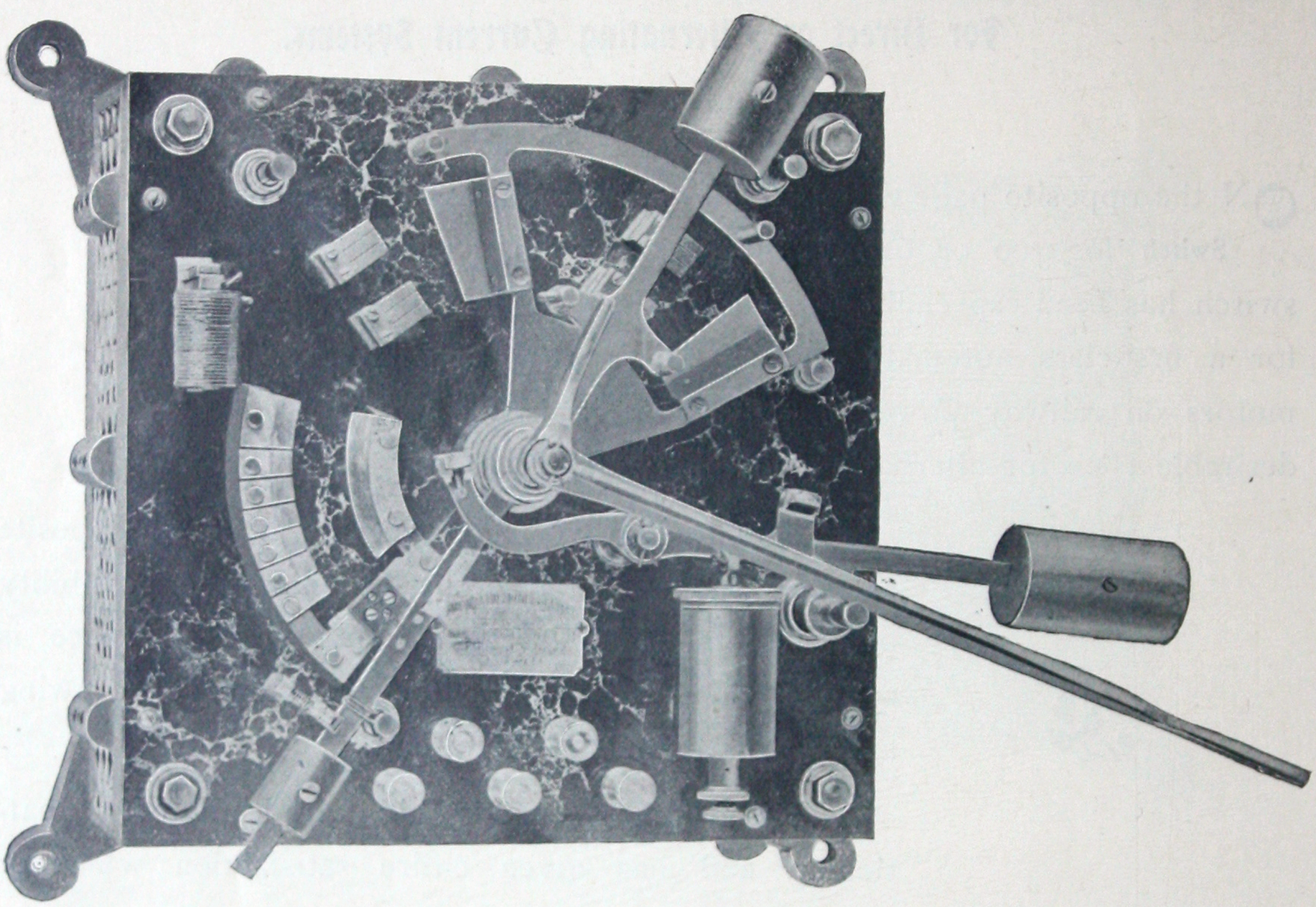
	Plain.	Polished.	Cat. No.
PRICE	$15.00	$18.00	AS15C

ZIMDARS & HUNT, NEW YORK.

Automatic Motor Starters.

TYPE B.

Pat. July 21st, 1896. Others Pending.



TYPE B, AUTOMATIC MOTOR STARTER.

For Starting Large Shunt or Series Wound Motors.

ZIMDARS & HUNT, NEW YORK.

TYPE B. **MAX. VOLTS 300.**

Automatic Motor Starter

FOR ELEVATOR, PUMP, CRANE AND OTHER WORK.

THE Automatic Motor Starter illustrated on opposite page embodies the results of an extended experience in the manufacture of apparatus of this kind, and its many excellent features will be readily recognized.

This starter is a complete piece of apparatus, having a double pole knife switch, automatic magnetic release, knife form of Rheostat contacts, long travel in the Rheostat lever, and further has all the desirable features applicable to a device of this kind.

The various operations are accomplished by the inter-action of a number of levers actuated by suitably proportioned weights. The time taken to completely start the motor being regulated by adjusting screws on the pivoted air dash pot. Operating entirely by gravity, the action of the levers is an even and positive one, in contrast to the variable and jerky motion incident to the use of springs.

These starters are eminently reliable and positive in action, and have given entire satisfaction wherever installed, under all conditions of service.

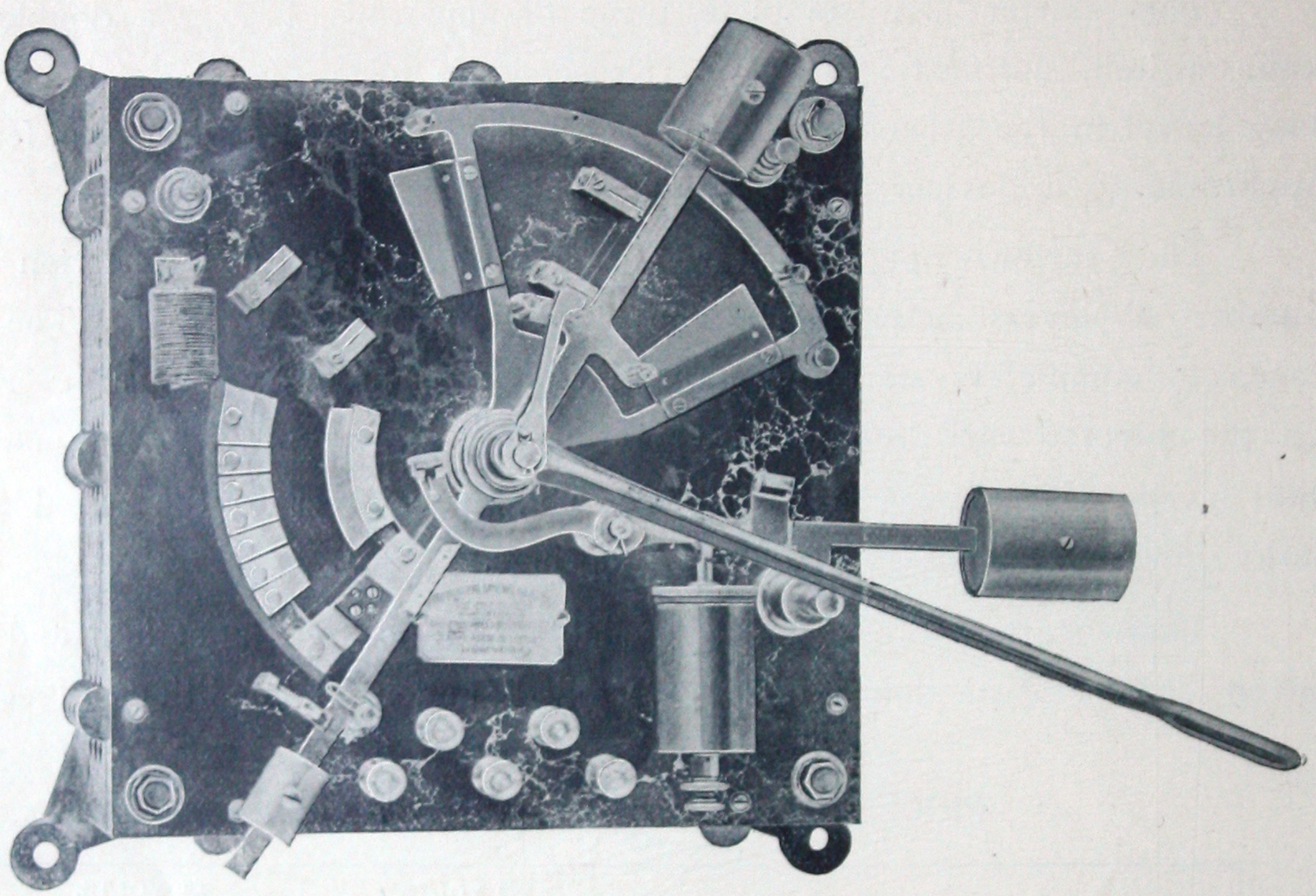
PRICES OF TYPE B MOTOR STARTERS.

HORSE POWER.		220 VOLTS. PRICE. PLAIN.	220 VOLTS. PRICE. POL.	220 VOLTS. CAT. No.	110 VOLTS. PRICE. PLAIN.	110 VOLTS. PRICE. POL.	110 VOLTS. CAT. No.
1		68.00	73.00	MS 12B	68.00	73.00	MS 11B
2		70.00	75.00	MS 22B	70.00	75.00	MS 21B
3		74.00	79.00	MS 32B	74.00	79.00	MS 31B
5		78.00	83.00	MS 52B	78.00	83.00	MS 51B
7½		82.00	87.00	MS7.52B	85.00	90.00	MS7.51B
10		85.00	90.00	MS102B	88.00	93.00	MS101B
15		100.00	106.00	MS152B	105.00	112.00	MS151B
20		135.00	142.00	MS202B	142.00	150.00	MS201B
25		145.00	152.00	MS252B	153.00	162.00	MS251B

AUTOMATIC MOTOR STARTERS

TYPE C.

Patent July 21st, 1896, Others Pending.



TYPE C,
AUTOMATIC MOTOR STARTER.

ZIMDARS & HUNT, NEW YORK.

TYPE C.

AUTOMATIC MOTOR STARTER

FOR

500 VOLT POWER CIRCUITS.

THE illustration opposite shows our **Type C Motor Starter** which has been designed for use on 500 or 600 volt power circuits.

While this starter is almost exactly like the **Type B Starter,** for 110 or 220 volt circuits, the distances between parts of opposite polarity and the breaking spaces are greater. With these exceptions, the two types are alike and the descriptive matter of the **Type B** on page 11, applies equally to this type.

For 500 or 600 volt work we can confidently recommend this starter as being thoroughly reliable in every particular.

PRICES OF TYPE C MOTOR STARTERS.

HORSE POWER.		PRICE. PLAIN.	PRICE. POL.	CAT. No.
1	----------	74.00	79.00	MS 15C
2	----------	77.00	82.00	MS 25C
3	----------	82.00	87.00	MS 35C
5	----------	86.00	91.00	MS 55C
7½	----------	90.00	95.00	MS7.55C
10	----------	95.00	100.00	MS105C
15	----------	110.00	116.90	MS155C
20	----------	150.00	156.00	MS205C
25	----------	160.00	167.00	MS255C

ZIMDARS & HUNT, NEW YORK.

...ATTACHMENTS...

FOR

OPEN TANK PUMP WORK.

Prices of Attachments for Automatic Switches.

	PRICE.
Tinned Copper Float	$1.50
Brass Chain, per Foot	.10
Japanned Iron Pulleys, each	.25
Brass Box with Adjustable Weights	.75
Adjusting Balls, each	.10

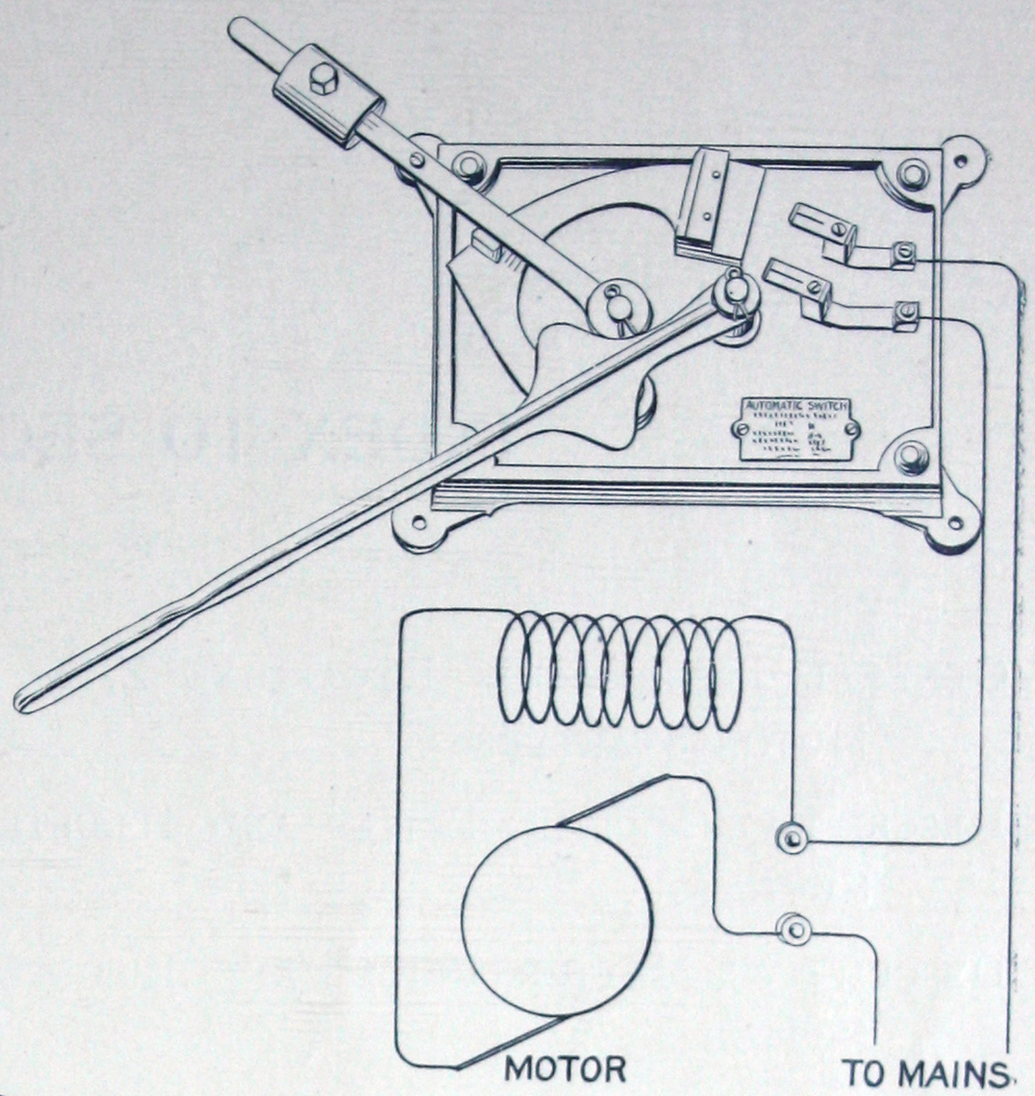
Prices of Attachments for Automatic Motor Starters.

	PRICE.
Tinned Copper Float	$3.00
Brass Chain, per Foot	.20
Japanned Iron Pulleys, each	.40
Brass Box with Adjustable Weights	1.25
Adjusting Balls, each	.10

Prices of Attachments for Closed or Pressure Tank Work, Elevator, Crane and other Work, furnished on application.

ZIMDARS & HUNT, NEW YORK.

DIAGRAM OF CONNECTIONS OF TYPE A AUTOMATIC SWITCH TO SERIES WOUND MOTOR.



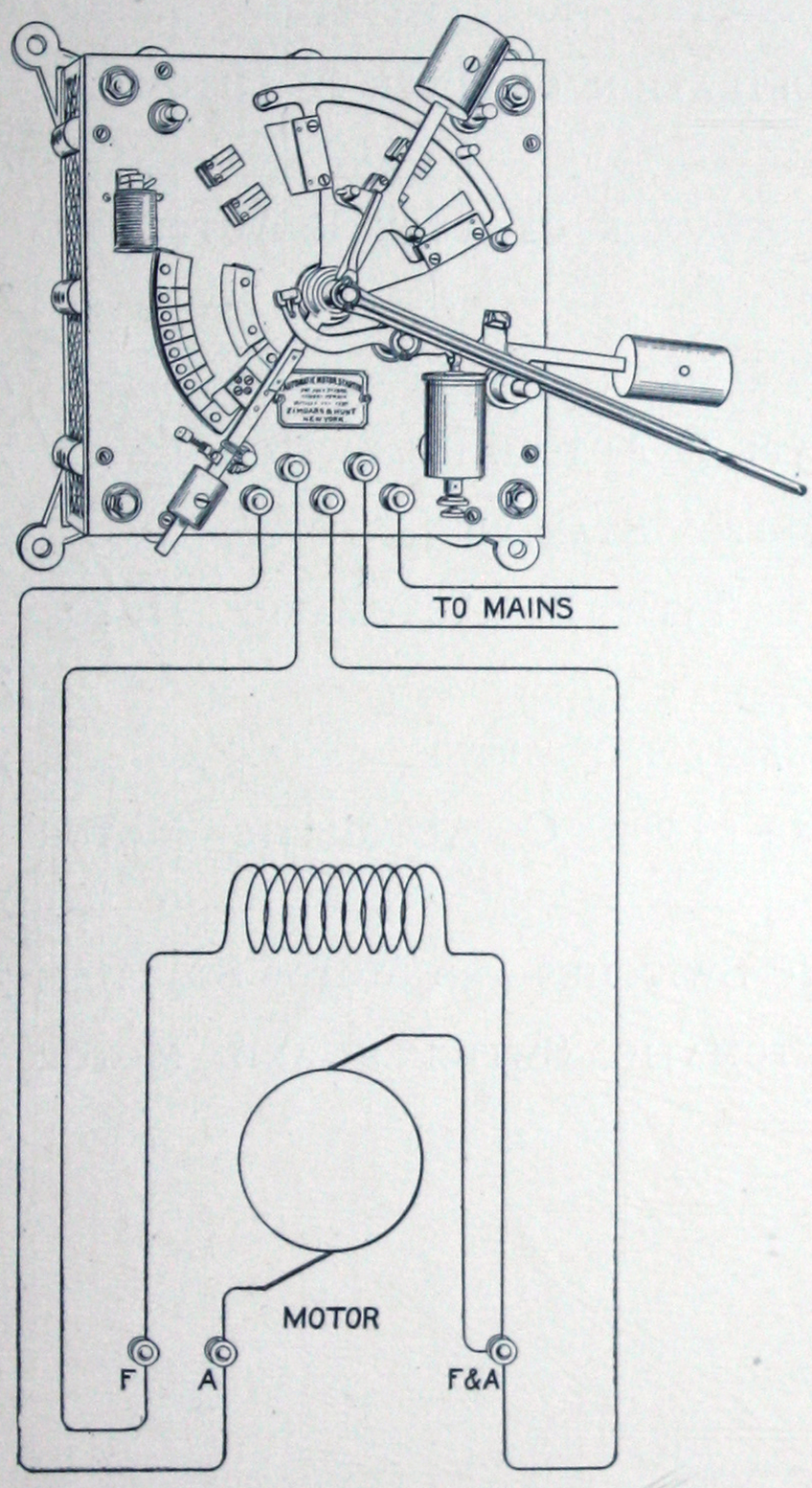


DIAGRAM OF CONNECTIONS OF AUTOMATIC MOTOR STARTER TO SHUNT WOUND MOTOR.

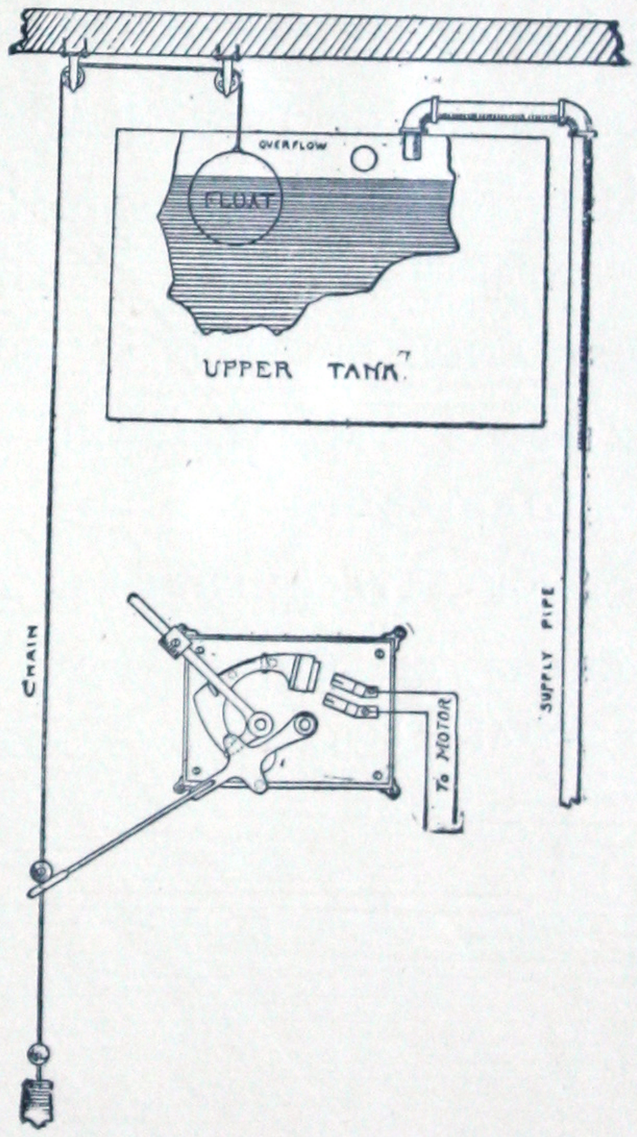


DIAGRAM SHOWING APPLICATION OF AUTOMATIC SWITCH TO OPEN TANK WORK.

ZIMDARS & HUNT, NEW YORK.

INDEX TO SECTION C.

General Information Regarding Z. & H. Automatic Switches and Motor Starters 69

Descriptive Matter, Prices and Illustration of Type A Automatic Switch 70

Descriptive Matter, Prices and Illustration of Type B Automatic Switch 71

Illustration of Type C Automatic Switch 72

Descriptive Matter and Prices of Type C Automatic Switch 73

Illustration of Type B Automatic Motor Starter 74

Descriptive Matter and Prices of Type B Automatic Motor Starter 75

Illustration of Type C Automatic Motor Starter 76

Descriptive Matter and Prices of Type C Automatic Motor Starter 77

Prices of Attachments for Automatic Switches and Motor Starters 78

Diagrams of Connections for Automatic Switches and Motor Starters 79

ZIMDARS & HUNT, NEW YORK.

[BLANK PAGE]

API INTERNATIONAL

CCA